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THESIS

NAVAL IMPLICATIONS OF THE
STRATEGIC ARMS LIMITATION TALKS

by

Grant Joseph Caughey

December 1980

Thesis Advisor: D. Yost

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This thesis surveys the naval implications of the treaty outcomes resulting from the Strategic Arms Limitation Talks (SALT). The fundamental hypothesis is that a correllation implying a causative relationship exists between the naval outcomes of SALT I and SALT II (dependent variable) and asymmetries in U.S. and Soviet negotiating methodology (independent variable). Assessment of the dependent variable is accomplished through systematic examination

of the treaty outcomes relevant to the naval capabilities of the two negotiating parties. These outcomes include the impact of SALT-imposed SLBM and SSBN numerical limitations upon fleet ballistic missile (FBM) force modernization, implications for sea-launched cruise missiles (SLCMs), naval air-launched cruise missiles (ALCMs), sea-based ABM/ATBM deployment options, and the naval significance of SALT outcomes relating to land-based naval air and potential ICBM/IRBM anti-ship targeting. The independent variable of negotiating approaches is evaluated through systematic scrutiny of the public SALT negotiating history. Although evidence is not entirely conclusive, the hypothesis seems to be sustained.

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Naval Implications of the Strategic Arms Limitation Talks

by

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Lieutenant, United States Navy
B.S., University of Kansas, 1974

Submitted in partial fulfillment of the
requirements for the degree of

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December 1980

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This thesis surveys the naval implications of the treaty outcomes resulting from the Strategic Arms Limitation Talks (SALT). The fundamental hypothesis is that a correllation implying a causative relationship exists between the naval outcomes of SALT I and SALT II (dependent variable) and asymmetries in U.S. and Soviet negotiating methodology (independent variable). Assessment of the dependent variable is accomplished through systematic examination of the treaty outcomes relevant to the naval capabilities of the two negotiating parties. These outcomes include the impact of SALT-imposed SLBM and SSBN numerical limitations upon fleet ballistic missile (FBM) force modernization, implications for sea-launched cruise missiles (SLCMs), naval air-launched cruise missiles (ALCMs), sea-based ABM/ATBM deployment options, and the naval significance of SALT outcomes relating to land-based naval air and potential ICBM/IRBM anti-ship targeting. The independent variable of negotiating approaches is evaluated through systematic scrutiny of the public SALT negotiating history. Although evidence is not entirely conclusive, the hypothesis seems to be sustained.

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I. INTRODUCTION

In recent years, few concepts have gained more attention than diplomatic negotiations for arms control. From a historical perspective, the Strategic Arms Limitation Talks represent the most important and critical negotiation effort to date. When President Carter and President Brezhnev signed the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Strategic Offensive Arms at Vienna on June 18, 1979, SALT had approached nearly a decade of institutionalized existence. These negotiations have also been the longest continuous Soviet-American negotiations on record. Notwithstanding the Carter Administration's active campaign of Congressional testimony and official pronouncements which pleaded the case for SALT II ratification, the Treaty remains an unfinished endeavor with a controversial past and an uncertain future.

Although the President transmitted the SALT II Treaty and its related documents for the advice and consent of the U.S. Senate in June 1979, the deteriorating political atmosphere attending the Soviet invasion of Afghanistan prevented the realization of his Administration's earlier intention for a ratification vote on SALT II in early Spring 1980. Senate floor debate on SALT II was postponed on January 3, 1980, following a Presidential request. As the following editorial

comment suggests, the President's postponement decision was drawn by the necessity of political reality.

> ... the delay was dictated by the political climate and tactical necessity and did not mean the administration was withdrawing the treaty. It continues to support its passage at a more propitious time. The delay is thus an effort to save the agreement in the long run.[1]

The Administration asserted that the delay was primarily designed to insulate SALT II from other dimensions of Soviet behavior, which might have negatively influenced the Senate's ratification decision. This rationale, however, is not consistent with previous statements made in support of SALT II from key Administration spokesmen. For example, Paul Warnke, as head of the U.S. SALT II delegation, maintained that "the only way that SALT can be sold is on its merits. I believe the agreement will command itself to anybody who approaches arms control with an objective frame of mind."[2]

Preliminary findings indicate that the Administration's explanations were in actuality an external facade primarily designed to screen from public view the most imminent threat to Senate SALT II ratification, which was not directly related to events in Afghanistan. On balance, when the postponement decision was announced by the White House, prospects for SALT II ratification were already doubtful. SALT II had drawn much opposition from a well-informed and highly critical body of strategic and arms control analysts whose articulate criticisms-with two major themes - had jeopardized ratification irrespective of any external political crises.

The first critical theme was that significant and adverse incongruities existed in the framework of SALT II Treaty outcomes. As a result, the treaty as proposed by the Carter Administration was not in our national security interest. Two examples are the cruise missile restrictions in the SALT II Protocol and the exclusion of the Soviet Backfire bomber from the numerical limitations established in the basic SALT II Treaty text. The negotiated outcomes of SALT I likewise received critical appraisal in hindsight. SALT I, it was argued, constituted U.S. acquiescence to a cumulative strategic advantage for the Soviet Union by quantitatively codifying U.S. inferiority in both the numbers of ICBMs and submarine launched ballistic missiles.

The second major body of SALT II criticism emerged as a result of perceived negotiating asymmetries in the SALT process from its basic inception. In the words of Foy D. Kohler, former U.S. Ambassador to the Soviet Union:

> The failure of the U.S. side to recognize, much less to react effectively to, the skill, purposefulness, and ruthlessness with which the Soviets have approached and sought to exploit the SALT negotiations has constituted a fundamental weakness in the U.S. conduct of the negotiations that has kept us continually off-balance and repeatedly placed us at serious disadvantage.[3]

In short, the critics insisted, the United States has been severely impaired from a negotiation perspective due in large measure to alarming deficiencies in both our analytical and

operational approach to SALT. Accordingly, one must ask how this particular state of affairs evolved.

The lessons of pre-SALT negotiating experience are available in an abundant body of literature which has established a basic framework dealing precisely with the problem of dissimilarities in bilateral Soviet-American negotiation behavior. Although it is not suggested that the Soviets consistently demonstrate a static all-embracing model of negotiating style, there are nevertheless a number of crucial behavioral regularities in their SALT negotiation strategy which the United States failed to conceptualize and counter. For example, Dr. William R. Van Cleave, in SALT I Senate testimony, identified what he believes to be the primary Soviet approach to SALT. The Soviets, he contends, do not see the SALT negotiations as "a cooperative process - as one in which both sides perceived the objectives and urgencies similarly." Rather, Van Cleave concludes, "The Soviet Union...seems clearly to have regarded SALT as another competitive endeavor, where the objective is unilateral advantage and where one can gain at the expense of of the other."[4] This zero-sum approach to negotiation is at variance with the traditional Western negotiating practice of accomodative negotiation utilized by the U.S. throughout SALT. Unfortunately, the U.S. predicated its strategy on the mistaken presumption that the Soviet approach would be a mirror image of its own.

One last but exceedingly important fact must also be taken into consideration. Although President Carter's hand might have been forced by the imperatives of tactical necessity, and the delay in consideration of SALT II has temporarily prevented ratification, the United States has been effectively abiding by the terms of SALT II in a de facto arrangement since treaty signature. In contrast, the Soviet Union's strategic force modernization efforts have continued. The Soviets have taken several actions which appear to violate the spirit, and in some cases the letter, of not only the still-pending SALT II Treaty, but also of the 1972 SALT I Interim Agreement, which both parties agreed to observe beyond its October 1977 expiration date on a reciprocal basis. To illustrate, in January of this year the Soviets test-launched their new "Typhoon" SLBM on the White Sea with 70 to 80% of its radioed telemetry signals in an encoded mode. Such encryption is not consistent with the spirit of SALT I and is in violation of SALT II provisions which require that the Soviets not use "deliberate concealment" measures which impair the ability of the U.S. to determine whether they are testing "heavy SLBMs."[5]

To reiterate, SALT opponents maintain that a decade of negotiation has basically institutionalized U.S. accommodation, tranquilized the American public, undermined efforts to support an adequate defense, and (by implication), signaled our unwillingness to reverse adverse military trends. As former Secretary of Defense Melvin Laird remarked, "The much-touted

SALT II 'process' of 'delicate' and 'intricate' negotiations has in fact proved to be a series of American retreats before a vigorous and determined Soviet government... This treaty, wrought in the closed rooms of Geneva where accommodation and acquiescence have answered Soviet intransigence and pathological secrecy, does not fare well in the open light of honest debate."[6]

The criticisms of the SALT process reviewed above are so striking that they constitute a justification for in-depth analysis of a particular facet of SALT outcomes. Despite considerable commentary on a variety of substantive issues underlying SALT, very little has appeared in respect to a comprehensive comparative appraisal of SALT from a naval perspective. This is a deficiency which the present study strives to correct. Such an analysis seems particularly significant, given the increasing dependence of the U.S. strategic Triad upon its sea-based component, as technological improvements in Soviet strategic force modernization continue to erode the survivability of the other two pillars of our strategic defense.

This study is therefore intended to test the hypothesis that a correlation implying a causative relationship may exist between the naval outcomes of SALT I and SALT II (dependent variable) and asymmetries in U.S. and Soviet negotiating methodologies (independent variable). In other words, to what extent do the apparently divergent negotiating approaches explain the contrasting treaty outcomes as regards naval

forces? Although causative linkages probably cannot be definitively established, it is assumed that clear conceptualization and scrupulous weighing of the available evidence will help in formulating qualitative judgments regarding the relative impact of the principle independent variable and other relevant independent variables.

II. SALT TREATY OUTCOMES

This chapter is intended to provide a detailed background to the specific naval implications of SALT I and SALT II outcomes. Primarily, this analysis will concentrate on an assessment of SALT's impact upon sea-based ABM systems, the potential threat to naval forces from land-based ICBMs and sea-based ballistic missiles, SLBM and SSBN numerical limits, naval air-launched cruise missiles, the Backfire bomber exclusion, and the deployment of sea-launched cruise missiles.

A. SALT I

On 26 May 1972, the United States and the Soviet Union completed a two and a half year negotiation endeavor known as SALT I. The negotiated outcomes of SALT I consisted of two major arms control agreements. The first was the treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems,[1] and the second was the Interim Agreement between the United States of America and the Union of Soviet Socialist Republics on Certain Measures with Respect to the Limitation of Strategic Offensive Arms.[2] By any measurement, both agreements inherently have significant implications for the future of both naval strategic and non-strategic systems development and capabilities.

1. ABM Treaty

Approached from a synoptic perspective, the ABM Treaty can be characterized as a quantitative, qualitative and geographic constraint upon strategic defensive armaments. A summary of the principal provisions can be characterized as follows:

1. Neither side is permitted to deploy a nationwide ABM defense or a base for such a defense.

2. Each side is permitted to deploy a limited defense of two areas - the national capital and one area containing ICBM's. In each defense area, out to a 150 km radius, each side is permitted up to 100 ABM launchers and interceptors and a limited radar base for these interceptors.

3. Neither side is permitted to give ABM capability to non-ABM systems, e.g., air defense systems.

4. Verification will be by national means. The parties have agreed not to interfere with these means.

5. The treaty will be of unlimited duration. Withdrawal is permitted for supreme interest.[3]

a. Implications for Sea-based Development, Testing and Deployment

The actual and potential implications of the ABM Treaty upon naval systems and capabilities are essentially outlined in Article V, Paragraph 1. Specifically, "Each party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based or mobile land-based."[4] Effectively, this provision has resulted in the limiting of ABM systems and their defined components

which may be developed, tested, or deployed to a fixed land-based mode, thereby prohibiting a sea-based ABM system or a sea-based ABM component, such as a shipborne phased-array radar linked to land-based ABM launchers and interceptor missiles, for the unlimited duration of the treaty. When viewed from a U.S. naval perspective, interpretation of the imposed limitations of the ABM treaty could potentially complicate efforts by the U.S. to counter naval threats through the development of modern naval defense systems intended for defense against air-breathing threats or against tactical ballistic missiles.

b. Historical Development of a Sea-based ABM Concept and SABMIS

The U.S. Navy's initial interest in a sea-based missile defense concept was stimulated prior to the termination of the Second World War when the Navy became increasingly concerned over the threat of Japanese kamikaze tactics. As a result, Project Bumblebee, directed by John Hopkins Applied Physics Laboratory under the auspices of the Navy, began investigating possible methods of protecting naval carrier attack forces at sea from kamikaze and other alien projectile threats. The Talos, Terrier and Tarter family of shipboard surface-to-air missiles were developed from this original research.

In particular, the Talos weapon system was to eventually have a role in the highly intense interservice ABM controversy which emerged in the late 1950's. As one might expect, the Navy at this particular point in time was willing

to participate in the interservice competition over ABM development, and in 1959, it recommended the Talos missile for an ABM interceptor role.[5] James Baar in 1959 discussed the possible application of this early sea-based AICBM (anti-intercontinental ballistic missile) concept:

> ...Talos would be used to bat down missiles fired against carriers, cruisers, and other surface ships. It also might be developed for defense of continental United States against ICBM's and missiles fired from submarines...The significance of the development of a seagoing AICBM in the evolution of U.S. strategy would be very great.[6]

However, the Navy "did not vigorously seek out this mission as a vital part of its overall strategic programs."[7] Early roles and missions assignments basically explain this decision. While the Army and Air Force were embattled over the issue of ABM from 1956 to 1958, the Navy was primarily interested in promoting inter-service support for the development of the Polaris ballistic missile submarine program. However, as Morton Halperin reveals, the Navy still

> wished to proceed with ABM in a way which kept open the possibility that later additions to this system would include a Navy-controlled sea-based system. In return for Army support of the Navy system, the Navy was prepared to support an Army (land-based system. Moreover, the Navy was concerned, as was the Air Force, with maintaining the system of unanimous Joint Chiefs of Staff support for service procurement programs.[8]

Thus, the Navy's role in ABM competition temporarily became one of passive neutrality.

Navy interest in a sea-based ABM system did eventually reemerge, as demonstrated by increased emphasis on a research and development program known as the Sea-based Antiballistic Missile Intercept System (SABMIS), which was considered by the Navy to be an alternative to the Army's ground-based BMD systems. SABMIS was an outgrowth of long-range strategic studies conducted by the Chief of Naval Operations, and in February 1967, the Navy formed the Office of Strategic and Defense Systems, under the CNO with Rear Adm. George H. Miller as director.[9] Operationally, the Navy envisioned ABM radars and interceptor missiles mounted on surface combatants and interceptors mounted on submarines deployed in the Northwestern Pacific and the North Atlantic. By offering defense in-depth, it was argued that SABMIS would complement land-based BMD systems by intercepting ICBM's and SLBM's in mid-trajectory, thereby reducing the problem land-based systems had in respect to discrimination between possible decoys and the true warhead. Furthermore, with the development of Multiple Independently Targetable Reentry Vehicle (MIRV) technology, the mid-trajectory intercept provided by SABMIS had a potential of being substantially more effective than the terminal defense systems of the Nike X-Sentinel-Safeguard variety.[10] Additional factors supporting a mobile sea-based concept were multipurpose integration, deployment mobility

in time of crisis, and the political advantages derived from providing flexible ballistic missile defense to allies. However, this sea-based ABM concept was developed too late. Both SALT I and the 10-year development advantage of the Nike-X System inhibited further development of SABMIS.

In 1970, amidst the background of the SALT I negotiations, the Navy was still calling for continued research on SABMIS. Admiral Moorer, as Chief of Naval Operations, specifically emphasized continued Navy interest in the program during congressional testimony before a House Subcommittee of the Committee on Appropriations at the DOD FY 1971 Appropriations Hearings. As reflected in this testimony, SABMIS was then OSD-approved (for R & D only), with fiscal year 1970 and FY 1971 funding at $1.5 million and 1.2 million respectively. "This austere funding level," he remarked, "precludes completion of concept formulation as specified in the Naval Material Command Plan."[11] In justifying SAMBIS, Admiral Moorer's defense was based on the following strategic assessment.

> Comparison of the United States and USSR land geography, population and industrial distribution, and strategic forces installations show a relative advantage for the Soviet Union in available land deployment area. The Russian geography is such that the Soviet urban and industrial areas are protected by extensive land buffer zones, whereas the majority of the urban/industrial areas of the United States are immediately exposed to attacks from across our borders and seacoasts... SABMIS units can provide defense-in-depth, mobility, a shoot-look-shoot capability, autonomous operation...[12]

SABMIS, however, was never a viable or continuous ABM program, as demonstrated by its relatively meager budget, and one can only assume from the available evidence, notwithstanding Admiral Moorer's argument, that SABMIS ranked low on any measurable priority scale during SALT I. As John B. Rhinelander notes, the constraints on future ABM systems was a U.S. and not a Soviet proposal.[13] Furthermore, evidence suggests that the implications of these restrictions appear to have escaped significant debate between U.S. and Soviet negotiators. This is demonstrated by the fact that agreement on the basic prohibitions in paragraph 1 of Article V was reached relatively early in the negotiations, and "neither side had pushed ABM programs which would be affected by this paragraph."[14] Furthermore, as John Newhouse writes of the U.S. Navy, "the Navy no longer cared about ABM's and left to itself would have taken any kind of limit."[15] This suggests that concomitant to the SALT I negotiations, the Navy developed a relative lack of interest in protecting or pursuing the development of a concept which had, up to that time, received only superficial attention. Admiral Moorer's post SALT I testimony before the Senate Armed Services Committee on the Military Implications of the ABM Treaty and the Interim Offensive Agreement only reinforce this conclusion. He states "the Navy has no system that is prohibited by the ABM Treaty, so there is little impact on the Navy in this regard."[16] In hindsight, this appears to demonstrate a certain lack of

vision, since the tactical application of naval ABM defense has gained in merit as the potential vulnerability of naval counterforce targets such as aircraft carriers and SSBNs to ballistic missile attack has become increasingly recognized - as will be discussed in the following section of this chapter.

c. Tactical Ballistic Missile Threat

Despite persistent iteration by Soviet strategic and naval writers who suggest the possible tactical application of ICBMs and SLBMs in a naval environment, few Western naval analysts have, until very recently, recognized or addressed the implications of such a mission. As evidenced by the following statement of Admiral Kasatonov, Soviet references to such possibilities existed as early as 1961.

> The essence of the problem is to create effective means for the distant destruction of submarines from the air which will make it possible to employ for their destruction the most effective modern means of destruction-missiles with nuclear charges launched from submarines, aircraft and ships and possibly also from shore launching mounts.[17] (emphasis added)

Although Admiral Kasatonov referred specifically to an ASW employment, utilization of such a system would also appear applicable against U.S. attack carriers, which were correspondingly perceived by the Soviets as a direct sea-based threat when staged within aircraft striking range of the Soviet Union. Robert Herrick's assessment of Soviet naval

strategy strongly suggests a tactically oriented role when he emphasizes that one of the primary missions of the Soviet Navy is the destruction of the enemy fleet.

> Whatever the facts of the wartime mission assigned the USSR's ballistic missile submarine force, it would be well to keep in mind, in view of widespread misconceptions on this score, that the Soviet Navy's basic wartime mission is definitely not submarine-launched strategic nuclear strikes at the United States. Rather, it is the destruction of the submarine, surface ship, and naval air forces of those powers. As Admiral Alafuzov has emphatically stated: "In a future war...The basic mission of our Navy will be to combat the Navy of the enemy."[18] (emphasis added)

Admiral of the Fleet S.G. Gorshkov reinforced this analysis when he wrote about fleet against fleet activities,

> The new possibilities of a fleet in operations against the shore and the resulting serious threat from oceanic directions have determined the character of the main efforts of a fleet in the struggle against an enemy fleet. The most important of them has become the use of the forces of the fleet against the naval strategic nuclear systems of the enemy with the aim of disrupting or weakening to the maximum their strikes on ground objectives.[19] (emphasis added)

More specifically, another Soviet admiral wrote earlier in a 1972 Soviet Navy Day article:

> Submarines armed with ballistic missiles are capable of destroying ships at a distance of hundreds of kilometers and of delivering blows from beneath the water at strategic enemy targets at greater distances.[20] (emphasis added)

Norman Polmar addressed the possible naval implications of Soviet tactical ballistic missiles in an article written in 1976, and suggested that the Soviets may potentially assign IRBM s or ICBM s against mobile naval targets. As he points out:

> This tactic may be related to the statement by the Soviet Defense Minister in 1972 that the strategic rocket forces had allocated some of their missiles to "naval groupings" at sea. The large payloads of Soviet ICBM's permit very large thermo-nuclear warheads with a large radius of destruction to compensate for submarine movement during missile flight; or possibly a terminal guidance system for localization could be developed.[21]

Some evidence suggests that the Soviets did intend to operationally develop the capability of utilizing SLBM s and possibly ICBM s in a tactical mode. In May 1972, the Soviets effectively constrained the future employment of sea-based ABM systems capable of defending naval task groups from tactical ballistic missile attack. In 1973, the Soviet Navy began testing the SS-NX-13, a 500-kilometer submarine launched ballistic missile with an inflight homing capability. Utilizing data received during flight from an on board sensor, the SS-NX-13 was believed to have been intentionally designed to vary its impact point up to 50 kilometers thereby optimizing its potential threat to mobile seaborne targets. The basic characteristics of the SS-NX-13 would include:

- A range of 100 to 600 nautical miles
- An apogee (maximum altitude) of 150 nautical miles
- Two stages
- A sensor (undefined) which "locks on" to the target near apogee
- Terminal stage maneuvers to allow impact at the sensor-detected target coordinates, offset from the initial ballistic impact point
- Submarine launch capability.[22]

Michael MccGwire's analysis of the development of the SS-NX-13 indicates that it was probably intended as a newly designed weapon system for the Soviet Y-class SSBN, and that it would have been deployed for ASW purposes. Although no apparent rationale has been offered for the abrupt termination of the SS-NX-13 program in November 1973, some sources suggest that

> The decision not to deploy the SS-NX-13 seems to have resulted not from any failure related to its anti-ship capability but rather from its failure to provide a sufficient anti-submarine capability. As cited by Admiral Gorshkov, the increased range in U.S. submarine-launched ballistic missiles - provided by the Trident system has resulted in expanding the area for trajectory maneuver (changing launch position), and thus potential target areas by two orders of magnitude.[23]

As indicated by Admiral Gorshkov, the tactical problem presented by increased target range could be resolved by incorporating "The tactical mutual support of mixed forces in the battle against strategic nuclear weapons platforms,"

by utilizing "the capabilities of other branches of the armed forces to operate in concert with the Navy in the Navy's sphere of missions."[24] Such statements strongly suggest the possible supplemental deployment of land-based ICBMs, such as the SS-16 or SS-18, in an anti-ship/anti-submarine role. The SS-NX-13 test conceivably demonstrated the necessary requirement of a terminal retargeting capability for tactical ballistic missile targeting. Additionally, the Soviets have demonstrated that they have the technical capability to deliver RVs to possible Trident operating areas by launching ICBMs to naval operating areas and through the simultaneous development of four ICBMs, one of which has displayed a range capability well beyond that required for strikes against the United States.[25] It is possible that, from a Soviet perspective, the most significant potential seaborne offensive threats were perceived as:

Trident (Poseidon)
Sea-launched cruise missiles (SLCM)
Attack carriers.

If so, the continued development and deployment of a long range tactical ballistic missile capability from a variety of sea-based and land-based launchers seems consistent with the requirements for effectively extending the range of counterforce targeting against surface and submerged naval platforms. Table 2-1 illustrates the potential application of Soviet ballistic missiles in this tactical anti-ship/anti-submarine orientation. The significance of such a capability,

TABLE 2-1

Potential Tactical Ballistic Missile Systems

Target Patrol Area	TBM Weapon System	
	Delivery Vehicle	Weapon
Deep Ocean	ICBM (e.g., SS-16 & 18)	MRV MaRV
	SSBN (e.g., Y-class)	SLBM with MaRV
	IRBM (e.g., SS-20)	MRV MaRV
Confined Sea[1]	IRBM (e.g., SS-20)	MRV MaRV

1. In land-encompassed areas such as the Baltic or the Mediterranean, a limitation for SLBM's is the ease with which trajectory can be back-tracked to locate launch point. This factor would inhibit survivability and therefore utilization of such a system in such circumstances. Soviet tattletale units which shadow U.S. naval forces in such regions could be potentially utilized to provide targeting data for Soviet land-based ballistic missiles.

in conjunction with the effective restrictions of the ABM treaty and the Soviet surplus in ICBM throwweight codified in the Interim Offensive Agreement (and SALT II), only supports the argument that the Soviets could afford to spare some ICBMs, SLBMs or non-SALT - regulated IRBMs for the naval purposes expressed above. Thus, the potential deployment of some form of a Soviet tactical ballistic missile with naval application should become a matter for serious thought.

d. Impact on ATBM and AEGIS

The development of an anti-tactical ballistic missile (ATBM) system would at first glance be difficult to justify in view of the provisions established in the ABM Treaty. However, as Captain L. F. Brooks recently suggested, such a system could probably be legally undertaken without technically violating the explicit terms of the ABM Treaty.

> Developing a counter to a tactical ballistic missile system cannot be undertaken lightly in view of the questions it raises with respect to the 1972 antiballistic missile (ABM) Treaty which banned, among other things, sea-based ABMs. Still, although the Soviets would clearly not be pleased with the deployment of such a counter, the Treaty defines an ABM as "a system to counter strategic ballistic missiles" (emphasis added) and thus an antitactical ballistic missile system is probably legal.[26]

However, analysis of Article VI, paragraph (a), imposes an additional restriction which Captain Brooks appears to neglect in his analysis: It plainly states that each Party undertakes;

> (a) Not to give missiles, launchers, or radars, other than ABM interceptor missiles, ABM launchers, or ABM radars, capabilities to counter strategic ballistic missiles or their elements in flight trajectory, and not to test them in an ABM mode...[27]

This provision effectively prohibits any ATBM capable system such as that proposed by Captain Brooks. Notwithstanding likely Soviet objections, the development of such a system would also have a number of internally imposed constraints to overcome, as demonstrated by the difficulties encountered by the Navy's nuclear-tipped SM-2 anti-aircraft missile. This variant of the SM-2 was to be a part of the advanced AEGIS air defense weapon system, which was originally designed to defend naval forces against Soviet ASM and aircraft threats in the 1980's and beyond.

Primary threats include Soviet ALCM s (e.g. AS-4, AS-6, and their successors, launched by Backfire or Badger bombers), SLCM s, (e.g. the supersonic SS-N-12 launched from Kiev class ASW carriers), and submarine launched cruise missiles (e.g., the SS-N-7, SS-N-9, SS-N-3a, SS-N-12, and the SS-NX-19). The Navy contends that a definite requirement exists for the deployment of an Aegis/nuclear SM-2 for two primary reasons. First, Navy studies indicated that conventional armed SM-2 systems may be inadequate to counter high altitude nuclear-armed cruise missiles. The nuclear variant is primarily designed to render the warhead of an attacking cruise missile ineffective. It was further argued, that the increased

emphasis upon tactical nuclear warfighting at sea adds a second dimension.

> U.S. naval planners believe it important to retain a nuclear air defense capability on U.S. surface combatants to be able to threaten a nuclear response to Soviet attack on U.S. naval forces. Uncertainty in the minds of Soviet planners as to how the U.S. might respond to hostile actions - because of the presence of nuclear armed SM-2 aboard U.S. warships - may serve to strengthen deterrence of such attacks in time of crisis.[28]

In 1978, the Senate Armed Services Committee authorized the FY 79 DOD funds requested for the nuclear tipped SM-2. However, an important caveat was attached; the use of these funds was embargoed until the administration filed an arms control impact statement on the weapon.[29] The delay implicit in this decision apparently resulted from an intense policy debate over the SALT-related implications of this particular nuclear warhead variant of the Navy's SM-2 anti-aircraft missile. As indicated in published congressional accounts,

> Technical issues were involved to some extent. The nuclear warhead, for example, might blind the Aegis radar to other approaching missiles. But the major issues involved arms control policy.
>
> Some administration officials feared that the nuclear SM-2 warhead guided by AEGIS would be so effective that it might upset the 1972 U.S.-Soviet Treaty limiting the production of anti-ballistic missile systems.[30]

The Administration's Fiscal Year 1980 Arms Control Impact Statements reveal that production of the SM-2 nuclear warhead was still being deferred pending completion of a Presidentially-directed study of its military utility and arms control impact, even though a nuclear-armed SM-2 in conjunction with AEGIS "would not be inconsistent with U.S. arms control obligations under the treaty." However, "further study of the implications of continued substantial deployment of nuclear SAMs will be carried out and evaluated before a decision to procure a nuclear warhead for the SM-2 system is authorized."[31] However, a position began to emerge in the FY 81 ACIS. It concluded that AEGIS with a nuclear SM-2 would not be precluded by the ABM Treaty, and furthermore, it would not be inconsistent with U.S. arms control obligations. Furthermore, it indicated that,

> It would be very desirable, although difficult, to reach an agreed demarcation among modern defense systems, to differentiate among those intended for defense against air-breathing threats, against tactical ballistic missiles or against strategic ballistic missiles. To constrain U.S. programs without firm categorization criteria could result in the U.S. being more self-constrained than the Soviet Union in developing high performance air defense and anti-tactical ballistic missile (ATBM) systems.[32]

Such references are important indicators that the significance of naval ATBM defense is beginning to be recognized. Although the ABM Treaty prohibits testing "in an ABM" mode, it was indicated that all potential U.S. testing of the AEGIS/

nuclear SM-2 would be consistent with our understanding of this restriction, that is, "The system will not be tested against strategic ballistic missiles."[33] Nevertheless, the administration remarked that before a decision to procure and deploy a nuclear warhead for the SM-2 system is authorized, a careful evaluation of the relative advantages and disadvantages must be completed. This evaluation would therefore necessitate the review of such factors as:

- The inconsistency of greater number of nuclear anti-air warfare ships with the administration's policy of seeking reductions in nuclear forces
- The system's uncertain effect on deterrence
- The problem of timely release authority.

Thus, as the matter now stands, the AEGIS/nuclear armed SM-2 missile continues to remain constrained, if not directly, by SALT and related arms control issues.

2. Interim Agreement on the Limitation of Strategic Offensive Arms

Within the agreed framework for negotiation outlined in the Joint Statement of May 20, 1971, the United States and the Soviet Union indirectly linked the ABM Treaty to what was to become the Interim Agreement on the Limitation of Strategic Offensive Arms. As stipulated, the United States and the Soviet Union "have agreed to concentrate this year on working out an agreement for the limitation of the deployment of

antiballistic missile systems (ABMs). They have also agreed that, together with concluding an agreement to limit ABMs, they will agree on certain measures with respect to the limitation of offensive strategic weapons."[34]

As the name implies, the Interim Agreement was designed as a temporary agreement placing certain quantitative constraints upon offensive strategic systems. It was further intended that a more comprehensive permanent treaty would replace it prior to expiration. The basic framework of the Interim Agreement provided for an established freeze on new construction ICBM launchers in combination with numerical limits on SSBNs and SLBM launchers. A general summary of the Interim Agreement's impact could be outlined as follows:

1. Each side is permitted to keep any fixed land based ICBM launchers currently operational or under construction. No new fixed land based ICBM launchers may be built.

2. The Soviets may complete the 313 modern large ballistic missile launchers, e.g. for SS-9 class missiles, currently operational and under construction. No new ones may be built.

3. Neither side my convert to modern large ballistic missile launchers or any other ICBM launchers.

4. Each side may keep any SLBM launchers operational or under construction. Also, newer SLBM launchers may be built as replacements for older SLBM launchers or for older heavy ICBM launchers.

5. Verification will be by national means. The parties have agreed not to interfere with these means.

6. The duration of the Agreement is five years. Withdrawal is permitted for supreme interest. The parties have agreed in the ABM Treaty to continue active negotiations for limitations on strategic offensive arms.[35]

A signed Protocol was also attached to the Interim Agreement, which provided additional details on the ballistic missile submarine and SLBM launcher limitations.

a. SLBM and SSBN Numerical Limits

Article III of the Interim Agreement, the attached Protocol, and Initialed Statement (K) all pertain to restrictions upon ballistic-missile submarines and SLBM launchers. Critics of the Treaty contend that these are the most difficult provisions of the Interim Agreement to understand. Analysis will demonstrate that these criticisms are justifiable.

As stipulated in Article III, each Party agreed to limit SLBM launchers and modern ballistic missile submarines to the numbers operational and under construction on the date of signature. This effectively limited the U.S. to 656 and the Soviets to 740 SLBM launchers on "nuclear powered submarines" as a baseline ceiling. When the provisions of the Protocol are taken into account, these baseline figures are adjusted upwards by what Thomas Wolfe characterized as a "complicated trade-off formula." For the U.S. this adjusted ceiling cannot exceed 710 SLBM launchers on no more than 44 "modern ballistic missile submarines", and for the Soviets,

no more than 950 SLBM launchers on no more than 62 "modern ballistic missile submarines." Any excess over 656 SLBM launchers for the U.S. and 740 SLBM launchers for the Soviets could only become operational if replaced by an equal number of pre-established "Ballistic missile launchers of older types deployed prior to 1964 or of ballistic missile launchers on older submarines." (This apparently refers to 54 Titan II launchers for the U.S. and 210 SS-7 and SS-8 ICBM's or older SLBM launchers for the Soviets.)

For the U.S., these provisions could be plainly interpreted. At Treaty signature in May 1972, the U.S. had 41 SSBNs and 656 SLBM launchers with no new construction under way.

The ambiguity of the text, however, becomes apparent when trying to interpret the Treaty's defined limits for Soviet ballistic missile submarine and SLBM launcher levels. In a post SALT-I press conference, Dr. Kissinger indicated that "the base number of Soviet submarines is in dispute. It has been in dispute in our intelligence estimate exactly how much it is, though our intelligence estimates are in the range that was suggested."[36] Thus, no concrete U.S. consensus existed as to the precise number of Soviet ballistic missile submarines operational or under construction. In addition, no defined agreement between the Soviets and the U.S. existed as to whether "under construction" as used in Article III, included only those submarines being assembled, as proposed

by the U.S., or whether it also included those further back in the production cycle (e.g. beginning with the prefabrication of hull sections).[37]

To further complicate the calculation, the Soviets had at the time of signature a number of submarine classes, both diesel and nuclear, which had SLBM launchers deployed. This included at the time approximately 22-G-class SSBs and 9 H-class SSBNs. Close analysis of the provisions indicate that a number of basic incongruities in the specified terms of the Treaty provided loopholes in respect to both these classes. These incongruities find substance in the interpretive awkwardness with which these provisions were written, as demonstrated by their lack of definitional clarity and poorly worded text. For instance, one could assume, from a Soviet perspective, that since older G-class SSB's and H-class SSBN's were not "modern ballistic missile submarines," they would not be accountable under the maximum allowable limit of 62. No precise definition of "modern" as used in this example existed within the agreement. A second example can be seen in respect to the SLBM launchers deployed on these two submarine classes. There was no precise definition as to what constituted a "modern SLBM." Since the H-class submarine was nuclear powered, its SS-N-5 missiles were accountable under the 740 baseline ceiling. However, the Soviets argued that SS-N-4 and SS-N-5 SLBM launchers on G-class were not accountable for any ceiling, since they were not "modern SLBMs." Such abnormalities

subsequently became the subject of "a major struggle between American and Soviet negotiators before and after the signing of the SALT I accords that was reportedly not resolved until the July 1974 summit."[38]

Most SALT I analysts agree that the numerical SSBN and SLBM imbalances written into the Interim Agreement constituted an unfortunate development but were not strategicall significant at the time, since similar U.S. systems enjoyed substantial qualitative advantages. These factors included MIRV capability, ASW assets, SLBM range and accuracy calculation, geographical asymmetries, etc. Kissinger, therefore, was able to later argue that the SS-N-4 and SS-N-5 configured G-class SSB's added only marginally to the existing Soviet strategic capabilities.[39] However, what he failed to mention and perhaps failed to visualize was how the deployment of a new SLBM such as the SS-N-13 might significantly alter this calculation. A G-class SSB configured with such a weapon would have offered a potent counterforce threat to our sea-based strategic platforms. Another argument suggested that owing to the relatively noisy acoustic signature characteristics of the Y-class SSBNs , and the fact that they were highly vulnerable to detection, localization and attack by Western ASW forces in such transit choke points as the G-I-UK gap, the Soviets were justified in wanting higher numerical limits. However, the introduction of the D-class SSBN and the long-range SS-N-8 SLBM the following year undermined this Soviet

geographical asymmetry rationale for higher SLBM requirements. The SS-N-8 represented a major qualitative improvement and effectively permitted the Soviets to cover continental U.S. targets while protected in home waters, such as the Barents Sea, which have been sanitized of any ASW threat. With its 4,200 NM range, the SS-N-8 gave the Soviets a range capability greater than our Trident I.

b. Soviet Strategic Sea-based Development

Soviet quantitative and qualitative upgrading of fleet ballistic missile forces has continued. The Delta III SSBN (with 24 SLBM launchers) and the SS-NX-18 liquid fuel SLBM with a post-boost vehicle capable of dispensing three MIRVs were introduced. The Y-class SS-N-6 also recieved qualitative improvements. The MOD-2 extended the SS-N-6 missile range and MOD-3 provided multiple RV delivery to this range. A new SLBM, the SS-NX-17, with greater accuracy and range than the SS-N-6, and is expected to be back fitted into some or all of these older Y-class submarines. Post-SALT I production of the Y-class reached the 34 boat/540 SLBM level. By April 1978, controversy was raised over the number of operational D-class submarines. Numerous unofficial sources argued that the Soviets had 30 operational Deltas, which would have placed them in violation of the established 62 boat, 950 SLBM SALT I ceiling. The Defense Department, although conceding that the Soviets had 64 SSBNs, added that two were not yet operational.[40] Verification of such findings however, is difficult to

substantiate. Technically, dismantling of older SLBM launchers is required to commence "at the time of the beginning of sea trials of a replacement submarine, and will be completed in the shortest possible agreed period of time. Such dismantling or destruction, and timely notification thereof, will be accomplished under procedures to be agreed in the Standing Consultative Commission."[41]

The proceedings of the SCC however, are kept in confidence. As Paragraph 8 of the SCC regulations states:

> The proceedings of the Standing Consultative Commission shall be conducted in private. The Standing Consultative Commission may not make its proceedings public except with the express consent of both commissioners.[42]

The Soviets have consistently expressed to the U.S. their concern about the importance of this confidentiality in the work of the SCC and about the official U.S. Government publication of data pertaining to these discussions.

One document, however, issued by the Carter Administration in 1979, might offer some insight into past Soviet compliance behavior. This study, prepared by the National Security Council for use by the Senate Intelligence Committee, specifically indicated that there were 11 attempts by the Soviets to conceal various aspects of its missile and SSBN programs from U.S. national technical means of verification. Although it stressed that most of these compliance issues had been satisfactorily resolved, the report asserted that one longstanding question pertaining to Soviet compliance behavior had yet to be settled.

> In 1976, it says, the United States discovered that the Soviet Union had deployed 791 submarine-launched missiles without fully deactivating 51 older, land-based rockets.[43]

In the face of this record, the U.S. has merely questioned Soviet behavior, and has never officially charged the Soviets with a violation. Harold Brown's Department of Defense Annual Report Fiscal Year 1980 does not help to clarify compliance questions. His figures indicate that the Soviets had "around 29 operational Delta submarines" and 34 Yankee class SSBNs. The lack of precision through modifiers such as "around" may be intended to carefully distract the public's knowledge of a possible violation. According to a 1979 review of the Soviet Navy by Donald C. Daniel there was tentative evidence suggesting that the Soviets had, in 1979, tapered down SSBN production. As indicated, SALT I appeared to be a factor influencing this trend, since at the time they were credited with having 63 modern ballistic missile submarines, which was one unit over the permissable SALT I limits.[44] In an article written the following year, Daniel indicates the Soviets had begun removing Yankee class submarines from strategic service in order to accommodate the continued deployment of the Delta III class.[45]

Continued production of the Delta III, and the recent launching from Severodvinsk in the fall of 1980 of a new class SSBN, the Typhoon, capable of firing 20 SS-NX-18 SLBMs or the recently tested Typhoon SLBM, is evidence of a

continued long-term Soviet objective toward maximizing the qualitative capabilities of their sea-based offensive capabilities within the advantagious numerical balance established in SALT I. Although the Y-class submarines are, as suggested, being deactivated from ballistic missile service, they still have a reasonable and useful service life remaining. Two potential options come into mind in respect to Yankee conversion. The most probable possibility, at least for the near future, would be the conversion of existing Yankee's into a SSGN configuration. A noise reduction program, in conjunction with the Yankee's speed capabilities and a capability of launching advanced ASW cruise missiles or long-range anti-ship SLCMs , would significantly enhance the VMF's warfighting capabilities at sea in both qualitative and quantitative aspects. Furthermore, this program could be carried out consistent with SALT I. From both a political and military perspective, this would be an extremely viable option.

A second option, although less likely to develop owing to its political and military implications, would be to replace the existing SS-N-6 or SS-N-17 SLBM's with nominally tactical ballistic missile systems. This substitution of newer types of ballistic missiles for older SLBMs could possibly constitute violation of the SALT I Treaty SLBM ceilings, except that the treaty does not discriminate between tactical and strategic ballistic missiles. Either option increases the vulnerability of existing and potential U.S.

sea-based strategic and tactical platforms, such as our SSBNs, SLCM surface units and carriers. Additionally, each option reinforce Admiral Gorshkov's assertion that

> The employment of Naval Forces against the enemies seaborne strategic nuclear systems in order to disrupt or blunt their attacks against ground targets to the maximum degree has become the most important of (the Navy's) efforts.[46]

c. U.S. Strategic Sea-based Development

In contrast with the perhaps questionable post-SALT I development efforts by the Soviets, the U.S. has consistently complied with all the provisions of the Interim Agreement. The two primary SALT I implications affecting U.S. sea-based strategic forces are first, the limits on SLBM launchers and SSBN numbers, and second, the dismantlement requirements.

Given the critical role of the U.S. fleet ballistic missile force as the most survivable element of the U.S. strategic forces Triad, U.S. strategic planners expressed an urgent requirement for both short-term and long-term improvements. This need became increasingly vital as the technological advances by the Soviets and their ICBM/SLBM quantitative advantages began to signal an erosion of the qualitative edge enjoyed by the U.S. in the immediate post-SALT I environment of the early 1970's. As with most of the Soviet modernization efforts, U.S. improvements were explicitly authorized by the Interim Agreement, providing its established ceilings and dismantlement requirements were not violated.

Near-term modernization was accomplished through the Poseidon program. Of the existing 41 operational SSBNs in the FBM force, the ten oldest Polaris submarines were to remain equipped with the Polaris 2500 NM (A-3) Multiple Reentry Vehicle (MRV) missiles. The remaining 31 were to be modified to carry the MIRVed 2500 NM Poseidon (C-3) SLBMs.

Long-term modernization was to be accomplished through the Undersea Long-range Missile System (ULMS), which eventually emerged as the parallel Trident submarine and Trident missile programs. Although ULMS was already in the development stage at the conclusion of SALT I, it was maintained that the temporary provisions of the Interim Agreement would not affect program development. Even under the accelerated development called for by Secretary of Defense Laird, which would have advanced Trident submarine deployment availability to 1978 (two or three years earlier than previously proposed in the regular program), the U.S. did not have the capability of bringing a new Trident SSBN operationally on line during the 5-year period of the Interim Agreement. Consequently, no significant SALT I impact was anticipated. These accelerated efforts, however, were attacked by the Soviets, who asserted that they undermined the 1972 agreements, despite their own vigorous and questionable modernization efforts. An example of this Soviet SALT propaganda campaign is available in comments offered by Genrikh A. Trofimenko, who claimed that the "acceleration" of such programs as

Trident represented "cardinal" infractions of the spirit of SALT I.[47]

As a result of our announced intention to continue to act in accordance with the terms of the Interim Agreement beyond its expiration date of 3 October, 1977, SALT I has affected U.S. FBM force levels. As required by the Interim Agreement, the U.S. was required to maintain no more than 41 SSBNs and 656 SLBM launchers. A maximum of 44 SSBNs and 710 SLBM launchers could, however, be legally attained if the U.S. undertook the dismantlement of the 54 Titan II ICBMs. This option has not been exercised. The only remaining option for the U.S. therefore, was to ensure that the baseline ceilings were not violated. As a result of this requirement, and based on an estimate of the intended sea trials for the first Trident SSBN, the U.S. Navy initiated the withdrawal of 2 Polaris SSBNs from the FBM force and began dismantlement procedures around August 1980. Unfortunately, there was no new Trident with which to replace them. Production delays not associated with SALT I currently place this new Trident SSBN 26 months behind the April 1976 date called for in the initial contract, and it is not expected to operationally enter the fleet until March 1982. This has created some problems with respect to target coverage cohesion. According to Navy officials, the target responsibilities of the 32 Polaris SLBMs had been shifted to some of the 1053 U.S. ICBMs. Nevertheless, there continued to be an adverse effect upon the remaining Polaris

boats which were deployed in the Pacific. As reported in one recent news account, the time lag created by having to take them out of service without the Trident replacement has put a significant strain on submarine operations in the Pacific.[48]

In spite of these difficulties, it appears that the remaining boats will be withdrawn from strategic service. Originally, Polaris boats were to be withdrawn from service as Trident deployed. However, it has recently been widely reported that the strategic retirement of all 10 Polaris boats will be completed by fiscal year 1981. Numerous news accounts suggest that this retirement has effectively commenced. When completed, the Polaris retirement will represent a reduction by about 25% of the Navy's FBM force without an available replacement.

Several additional factors are pertinent. First, irrespective of SALT I requirements, the first two Polaris submarines had exhausted their nuclear fuel. It would therefore have required extensive and expensive repair work to keep them in service. Second, the early decision to initiate conversion of the remaining 8 Polaris submarines into SSNs could also be a result of budgetary constraints. Seven out of the 10 Polaris submarines would have required overhaul before 1983. It would have cost the Navy between $70 to $90 million per ship to overhaul them and keep them on line. As the Deputy Director, Strategic Submarine Division, office of the CNO, states, "The money that we would have to pump into

that older weapons system the Navy has found is really not cost effective when you look at the strategic capability you are getting back."[49] Additionally, the need for maintaining the Polaris force is significantly reduced once Trident deploys, since one Trident submarine will provide a target coverage capability greater than that provided by all of the Polaris SSBNs.

Another factor to consider is the deployment last year of the first Trident (C-4) equipped Poseidon. With an increased range of 4,000 NM (1500 nm greater than the C-3) and a MIRVed capability of 8 warheads, such Trident-equipped Poseidon SSBNs significantly reduce the disparities associated with the loss of our Polaris fleet, and 12 Poseidon submarines have been scheduled for refitting with Tridents by 1982.

The continuation of SALT-I, albeit not legally binding, will also have a serious long-term implication affecting Trident's future production rate. As reflected in Table 2-2, the entire U.S. FBM force, assuming an originally designed 20-year service life, will be due for retirement between 1979-1987. Furthermore, all 31 of the newer class Lafayette SSBNs were commissioned within a 4-year period. Since the Polaris/Poseidon force was built at a much faster production rate than that currently planned for Trident, SLBM force levels will drop significantly during the four year phase out of Poseidon. Subsequently, Poseidon service life has been extended to 25 years and then 30, in an effort to

minimize the impact of this four year block obsolescence. These extensions, however, were primarily based upon the assumption that the U.S. would no longer be restrained by the temporary constraints imposed by SALT I. Based upon the Trident procurement rate of 3 submarines every 2 years, SLBM force levels will surpass the SALT I SLBM launcher ceiling of 656 upon the commencement of sea trials for the sixth Trident SSBN. SALT I would therefore require the withdrawal of a certain percentage of the Poseidon fleet from FBM service, or, the U.S. must impose an even longer stretch out of the Tridents already lean production rate. This second alternative would impose serious budgetary constraints upon a program which has already experienced the negative effects of cost overruns and production delays resulting from the Carter Administration's Trident stretchout. This "good faith" SALT II negotiation gesture has already significantly affected program cost and submarine unit costs, resulting from factors such as smaller lot buys, the flattening of the shipbuilding learning curve, imposition of additional shipyard overhead expenses per ship due to a decreased annual shipbuilding rate, and exposure to increased inflation rates. In summary, U.S. FBM force modernization efforts seem to be adversely affected by an Interim Agreement which originally had no effect upon strategic U.S. sea-based development plans, and will continue to be influenced while SALT I remains in effect.

TABLE 2-2

Composition and Projected Retirement Dates of the U.S. Fleet Ballistic Missile Force[a]

Class	Number	Commissioning Dates	Retirement Dates[b]
Washington	5	12/59-3/61	1979-81
Allen	5	8/61-1/63	1981-83
Lafayette	31	4/63-4/67	1983-87

a. Table from Lawrence J. Korb, "The FY 1979-1983 Defense Program Issues and Trends," AEI Defense Review, volume two, number 2, p. 33.

b. Retirement dates assume a life of twenty years.

Another implication of SALT I in respect to potential naval capabilities arises in respect to the proposed Shallow Underwater Mobile (SUM) system, which has been recently suggested as an alternative basing mode for MX. As proposed by Sidney Drell, SUM would be

> a survivable basing mode that relies on small conventionally powered submarines operating within several hundred miles of the East and West coasts of the continental U.S. Around fifty such submarines would be deployed in these coastal waters and would thus be effectively hidden in an area of more than several hundred thousand square miles.[50]

Notwithstanding the recent debate over SUM's survivability, which is being contested because of its potential vulnerability to such factors as the Van Dorn effect, SUM would be impossible to operationalize if the current SALT I status quo is maintained. Since "the deployment of modern SLBMs on any submarine, regardless of type, will be counted against the total level of SLBMs permitted," deployment of SUMs would have to be at the expense of FBM submarines and SLBM launchers.

B. SALT II

Although it now seems almost certain that the SALT II Treaty as signed on 18 June, 1979 will not be brought before the Senate for ratification, it is nevertheless important to identify those implications which may have had an impact upon naval capabilities and strategic sea-based systems.

Much like SALT I, the agreements reached in SALT II embodied a compromise agreement arrangement designed in a 'three tier framework' with each part interdependently linked. The main body of the accord was integrated into the actual SALT II Treaty, which fundamentally embraced the agreements reached at the Vladivostok Summit on November 24, 1974.[51] This encompasses a complicated arrangement of aggregate limits upon strategic offensive arms, and upon ratification would have had a duration until December 31, 1985. The second part of SALT II takes the form of a Protocol, which adds constraints upon the sea-launched and ground-launched variants of the cruise missile. This particular Protocol would have expired on December 31, 1981. Finally, the SALT II includes a Joint Statement of Principles and Basic Guidelines for Subsequent Negotiations (SALT III). The entire SALT II accord is an extremely comprehensive and complex set of documents, which obviously requires extensive analysis. This study, however, will be confined to a consolidated analysis of several key naval issues.

1. SALT II Treaty

The provisions established in the SALT II Treaty could be characterized as having three fundamental implications from a naval perspective. These are its effects upon SLBM and SSBN force levels and modernization, impact of ICBM aggregate totals, and implications for the deployment of ALCMs from naval aircraft.

a. Effect upon SLBM and SSBN Force Levels and Modernization

Article III of the basic SALT II Treaty established aggregate ceilings for both signatories, which restricted ICBM launchers, SLBM launchers, heavy bombers, and ASBMs (Air-to-surface ballistic missiles) to a combined limit not to exceed 2,400. This limit was to be further reduced to a maximum allowable ceiling of 2,250 from January 1, 1981 onwards. Article V, paragraph 1, further refines these limits by establishing within the upper limit an aggregate sub-ceiling for MIRVed ICBMs, SLBMs, ASBMs and cruise missile-capable heavy bombers, not to exceed 1,320. This is further modified in paragraph 2, which limits MIRVed ICBMs, SLBMs and ASBMs to 1,200. Finally, paragraph 3 undertakes to limit ICBMs equipped with MIRVs to a maximum permissible ceiling of 820.

When these limits are examined in relationship to the Trident submarine and Trident missile modernization programs, however, an undesirable production and replacement problem becomes apparent.

As recorded in the U.S. Statement of Data on the numbers of Strategic Offensive Arms of 18 June 1979, the U.S. had in its inventory 550 MIRVed ICBMs for a combined total of 1046 MIRVed launchers. The impact of these figures becomes evident when the planned U.S. strategic forces posture for the Treaty period is examined. Paul Nitze identified one major disparity in SALT II Senate testimony which

indicated, contrary to administration analysis, that SALT II would have had a negative impact upon planned Trident production. Assuming that the past preference for MIRVed ICBMs remained relatively stable, as implied by the high 820 MIRVed ICBM launchers sublimit, then the U.S. would continue to rely on its existing 550 Minuteman III launchers.[52] Factors such as accuracy, throw-weight potential and C^3 reliability of present state of the art ICBMs, the termination of the Minutemen III production line, and delays on the MX all reinforce this conclusion. The combination of this force with the 496 MIRVed Poseidon launchers and the projected 168 MIRVed Trident SSBN launchers would result in a total of 1,214 MIRVed ICBM launchers. This total exceeds the 1,200 limit on MIRved missile launchers authorized by SALT II. One could therefore speculate that, unless there were a further delay in the Trident program, a small number of Poseidon or Minuteman III launchers would have to be dismantled. Furthermore, if the U.S. intended to deploy in excess of 120 ALCM-bombers, an additional number of Poseidon or Minuteman III launchers would have to be phased out.

In respect to MIRVed SLBM launchers, the U.S., under SALT II, was expected to maintain a quantitative advantage. As projected to 1985, the U.S. would have had 664 MIRVed SLBM launchers on 38 SSBNs. A breakdown of this FBM force would have primarily consisted of

- 7 Trident SSBNs, each with 24 Trident I SLBMs, each carrying approximately 8 RVs
- 12 Poseidon SSBNs backfitted with 16 Trident I SLBMs, each carrying approximately 8 RVs
- 19 Poseidon SSBNs, each with 16 SLBMs, each carrying 8 to 10 RVs.

In contrast, the Soviets were projected to deploy only around 380 MIRVed SLBM launchers by 1985. This was based on the assumption that they would maximize deployment of their SALT II-authorized MIRVed ICBM limit (820). It is worth noting, however, that this probable U.S. numerical advantage in MIRVed SLBM warheads would not offeran SLBM-based hard target kill capability within the established Treaty period. Additionally, one must take into consideration a number of other factors. In relative terms, SALT II provides no fixed limits on non-MIRVed ballistic missile launchers. The difference between the 2,250 strategic nuclear delivery vehicle launcher limit and the 1,200 MIRVed missile sublimit leaves 1,050 launchers which could be either missiles or bombers. Currently, the U.S. is phasing out all of its ten Polaris SSBNs, each capable of launching sixteen SLBMs with three MRVs. The Soviet Union, on the other hand, has around 792 unMIRVed SLBM launchers deployed. After reaching the projected 308 MIRVed level, they could still by 1985 have had from 550-650 unMIRVed SLBM launchers. These figures, of course, are only speculative, and are based on projected estimates of Soviet

SLBM, ICBM and bomber requirements. As in the Interim Agreement, inconspicuously missing from the SLBM launchers to be counted under SALT II are the existing SS-N-4 and SS-N-5 SLBMs deployed aboard the G-I and G-II SSBs. As previously indicated, such launchers could be converted and deployed with SLBMs capable of a tactical antiship/ASW mission profile, and would be permitted to utilize advanced MRV or single MaRV capability under SALT II. This would provide an extremely useful naval counterforce strike capability, while at the same time permitting a reserve force of 308 MIRVed SLBMs which could be withheld for a prolonged engagement or war termination. This would increase Soviet war fighting capability and offer an effective bargaining advantage which would enhance war survivability.

Although the U.S. freedom to develop strategic forces at sea under SALT II has been maintained; similar freedom exists for the Soviets. For example, both the U.S. and the Soviet Union would be permitted under SALT II to develop and deploy on SLBMs depressed trajectory technology. Due to the flatter trajectory offered by a "depressed trajectory" flight profile, SLBM flight time could be reduced by at least several minutes. For example, a present high trajectory SLBM fired from about 500 nm off the U.S. coast could hit an inland U.S. bomber base in about 8 minutes. U.S. experts calculate that this flight time could be trimmed to about five minutes by utilizing a "depressed trajectory" profile.

This would represent an increased danger to the U.S. by enhancing Soviet first strike capabilities. The United States, on the other hand, has little incentive to develop such a capability for two reasons. First, given present U.S. strategic doctrine, it is highly unlikely that the U.S. would plan a first strike attack. Second, geographical asymmetries benefit the Soviets, due to the greater depth of location of potential Soviet soft targets. The U.S. SALT II delegation headed by Paul Warnke offered a proposal on prohibiting such "depressed trajectory" development in 1978; but it was reported that if the Soviets balked at the proposed ban, the U.S. did not consider it significant enough to stand in the way of final agreement.[53]

b. ICBMs

One of the most striking asymmetries in strategic capabilities in the present treaty is in ICBMs. In MIRVed ICBM launchers, the U.S. at treaty signature had 550 Minuteman III ICBMs as opposed to 556 for the Soviets. At first glance, one could probably conclude that this roughly equates to parity. However, the Soviet ICBM force, both MIRVed and unMIRVed, constitutes far greater throwweight and hard-target kill potential than that offered by the U.S. land-based ballistic missile force. The implications of Soviet throwweight advantage are particularly acute in light of the 308 MIRVed SS-18 heavy ICBMs permitted in SALT II. Calculations of SS-18 hard-target kill capability, assuming a .75 megaton warhead

and an expected .1 nautical mile CEP, would permit about one-third of this force to destroy some ninety percent of the entire U.S. ICBM force. In comparison to the quantitative advantages the U.S. is expected to enjoy with respect to MIRVed SLBM warheads, sixty SS-18s (roughly 20% of the force), would exceed the total U.S. SLBM megatonnage projected for 1985 (inclusive of seven Trident I equipped Ohio-class SSBNs and ten Trident I converted Poseidon SSBNs).[54] Similar sized ICBMs are not authorized for the U.S. under SALT II. One could approximate from the existing (and often disparate) data available which take into account such factors as throw-weight, warheads, accuracy, hard-target kill capabilities, active and passive defenses, and the number and dispersion of targets, that SALT II grants rather significant advantages to the Soviet Union in the present and potential overall effective strategic balance. In the context of a Soviet strategic doctrine of warfighting, which stresses that victory in a nuclear war is feasible and meaningful, the asymmetry briefly outlined above provides the Soviets an opportunity to undertake programs which would further enhance these objectives. To recapitulate, this could translate into the development and tactical deployment of Soviet ICBMs, MRBMs and IRBMs dedicated to a counterforce antishipping and ASW mission.

c. Naval ALCMs

A highly promising technological development was denied the U.S. Navy with respect to the air-launched cruise

missile (ALCM), although it has undergone most of its flight tests from a tactical aircraft (a Navy A-6 carrier-based attack aircraft). Article VIII of the SALT II Treaty specifies that

> 1. Each Party undertakes not to flight test cruise missiles capable of a range in excess of 600 kilometers or ASBMs from aircraft other than bombers or to convert such aircraft into aircraft equipped for such missiles.
>
> 2. Each Party undertakes not to convert aircraft other than bombers into aircraft which can carry out the mission of a heavy bomber as referred to in subparagraph 3 (b) of Article II.[55]

However, a requirement continues to exist, for such a capability, since the Navy's carriers remain primary targets of and are presently highly vulnerable to coordinated counterforce strikes from Soviet air, surface and sub-surface platforms. The deployment of long-range ALCMs on carrier-based tactical aircraft would enhance the carriers offensive projection capability by extending the carrier's effective launch and strike radius and provide greater penetrability for its conventional and nuclear land-attack capability. Long-range land attack cruise missiles could also "reduce aircraft attrition in attacks against heavily armed targets, permit heavier initial attacks, and lead to achievement of air superiority earlier."[56] Additionally, with an extended range capability, the carrier would enjoy a stand-off capability, thereby reducing the time in or need for entering a highly reactive Soviet naval defensive envelope. SALT-II therefore has eliminated an extremely effective option for

increasing the U.S. Navy's sea control and power projection capabilities in this area. In contrast, the shorter ranges permitted by this provision provide the Soviet sea-based and land-based naval aircraft an attractive antiship weapon system. Thus, while constraining the missions and survivability of U.S. carriers, SALT II enhances the sea denial and damage limitation missions of the Soviet Navy.

d. Backfire

These contrasting effects become even more acute when one considers the naval implications of the SALT II Backfire bomber exclusion. Notwithstanding its arguable intercontinental range capabilities, there is virtually no debate over the potential threat to U.S. naval forces in respect to supersonic Backfire bombers equipped with short range (less than 600 km) ALCMs in a naval environment. Backfires, and to a lesser degree the remaining medium bombers assigned to the Soviet Naval Air Force, will be able to attack U.S. carriers and ships with air-to-surface missiles at extended distances from their home bases, covering most sea areas of high U.S. naval interest. They can launch cruise missiles from beyond the range of our naval Anti-air Warfare (AAW) perimeter, extend the effective concentration of coordinated Soviet air, surface, and submarine attack, and use new technology to find our fleet units, jam our defenses, and screen their approach. As Uwe Nerlich notes, it is difficult to comprehend, from a negotiation perspective, why the present administration has

virtually abandoned the SM-2 nuclear warhead "at the very moment the United States failed to constrain Backfire deployment in SALT II, even though the SM-2 was designed to protect sea lanes against the Backfire."[57] Finally, the Backfire demonstrates a range capability for bomber strikes on airfields currently utilized by the U.S. Navy's P-3 landbased ASW aircraft. Such strikes could include Keflavik, Lajes, Rota and Sigonella in the Atlantic/Mediterranean regions and virtually all of the P-3 deployment sites in the Pacific and Indian Oceans. This would significantly disable an extremely effective and important ASW asset.

2. SALT II Protocol

a. Effect Upon SLCM

The SALT II Protocol was primarily designed as a supplement to the SALT II Treaty and was intended to encompass those issues on which 'permanent' agreement could not be reached, or where uncertainty existed in respect to the evolutionary development of new military technology.

Of major consequences are the Protocol's provisions pertaining to the sea-launched cruise missile. Specifically, "each Party undertakes not to deploy cruise missiles capable of a range in excess of 600 kilometers on sea-based launchers or on land-based launchers."[58] Furthermore, it was agreed that application of the range limitation would be calculated utilizing an 'odometer' rather than 'operational' range criterion for the measurement of a cruise missile's maximum range.

The U.S. 'operational' range concept took into account the evasive route a cruise missile must take to avoid active defenses and to locate areas of substantial terrain contrast to update its terrain contour matching system (TERCOM). The Soviet 'odometer' concept, which prevailed in SALT II SLCM and GLCM range determination, effectively reduces the operating range by 20 to 40 percent depending upon the density of air defense and the character of local terrain.[59]

This fundamentally limits the application of U.S. sea-launched cruise missiles to an anti-shipping role or limited shore strike, but even more severely constrains their utilization in a strategic land-attack mission. Several strategic targeting asymmetries explain this limiting aspect.

The most salient SLCM targeting asymmetry results from geographical differences. The 600 km range restriction significantly favors a Soviet counterforce and countervalue advantage for SLCM targeting. For example, the existing SS-N-3 Shaddock cruise missiles launched from E-II class submarines off the U.S. coast could inflict significant damage to these important regions.[60] Counterforce targets within range of a 600 km SLCM include: FBM submarine ports, SLBM missile storage areas, bomber bases within range of the coast, naval bases and airfields, C^3 installations and the U.S. National Command Authority. The only major counterforce targets these SLCMs would not be capable of striking would be ICBM silos and bomber bases which are sufficiently deployed inland from the coast.

Additionally, U.S. nuclear systems in Europe and Asia are vulnerable to short-range cruise missile attack from Soviet surface-launched, submarine-launched and air-launched platforms, such as the KYNDA cruiser, E-II or Juliet submarines, or Backfire bomber. U.S. countervalue vulnerability to 600 km SLCMs has been estimated to be from 50 to 75 percent of our population and industry.[61]

In contrast, the unique characteristics of the Soviet Union's geography makes the U.S. SLCM cruise missile targeting problem more complex. First, short-range SLCM limitations make U.S. launch platforms highly vulnerable to Soviet coastal ASW efforts and extended Soviet air defenses. Additionally, the Soviet deployment of anti-shipping SLCMs and ALCMs further erode the survivability of surface cruise missile carriers by extending the Soviet defensive perimeter. For example, SLCM-equipped Soviet surface combatants could be deployed athwart the North Cape, thereby inducing substantial target coverage degradation for shortrange SLCM units.

U.S. sea-based requirements for a land-attack SLCM require a range sufficient enough to strike Soviet counterforce targets from distant launch buffer zones, thereby enhancing cruise missile carrier survivability and maintaining the strategic or tactical formidability of the SLCM. As a subset to the primary Navy mission, the function of sea control includes the destruction of selected naval targets ashore. Darold Axtman notes however, that Soviet coastal

counterforce targets are for the most part nearly 1000nm from safe launching zones, assuming a reasonably secure launch position of 200nm from the coast. There are a limited number of counterforce targets which are within a range less than 1000nm which include the Northern and Pacific Fleet naval installations and some early warning facilities.[62] It could be argued, however, that a 200nm safety launch zone in the Barents Sea area is an overly optimistic assumption, in view of the heavy concentration of Soviet naval and air units in this region.

Finally, most Soviet countervalue targets are located at ranges from 1000-2000nm from a 200nm buffer launch zone. A basic comparison of the geographic asymmetries in respect to effective SLCM ranges is illustrated in charts 2-1 and 2-2.

Salt II Treaty advocates have maintained that these limitations are only effective until the Protocol's expiration date on December 31, 1981, and that the Protocol does not constrain future deployment, since the operational IOC for the SLCM is not anticipated until sometime after this date. These arguments, however, have received a number of critical appraisals. William Schneider's analysis notes that under the Vladivostok Accords, the defense program proposed by President Ford in the FY 1977 and FY 1978 Budgets, the Protocol's original duration (through December 31, 1980) would not have interfered with the cruise missile program.

However, the extension of the Protocol under the Carter Administration into December of FY 82 would have interfered with the deployment of the SLCM. Consequently, the Carter Administration superficially resolved the issue by slowing down the development of the SLCM in the FY 78 and 79 DoD budgets, which effectively delayed SLCM availability until FY 84 or later.[63] This go-slow attitude by the Carter Administration in respect to the land-attack SLCM has been identified in several additional sources. As reported in a January 1977 issue of the Congressional Quarterly Weekly Report,

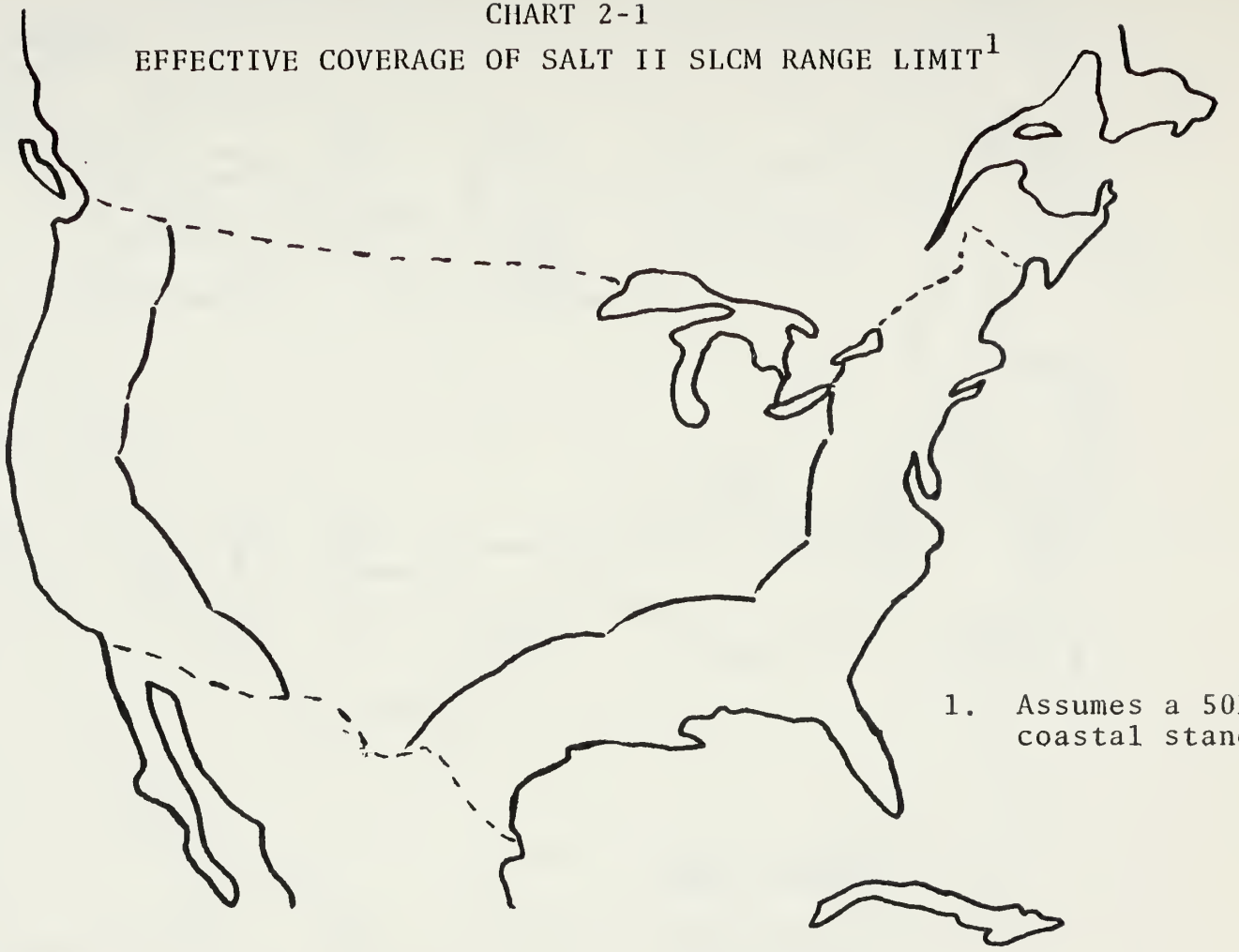
> Secretary Brown reportedly was considering cancellation of the long-range, ship-launched version of the cruise missile-a miniature jet-powered drone that could deliver a nuclear warhead to within tens of yards of a target more than 2,000 miles distant. Both he and Gen. Brown told the Senate Committee Jan. 25, that they regarded this version of the weapon as much less useful than tactical and air-launched versions.[64]

In both 1978 and in 1979, records of Sentate Armed Services Committee action attest to an administration policy of budgetary restraint on the land-attack SLCM.

> As it had done in 1978, the panel insisted on adding money (19.4 million) for production of nuclear-armed cruise missiles that would be launched from ships and submarines against land targets. The administration had deferred production of the weapon, arguing that it might simply duplicate other weapons. But committee members argued that the weapon could offset a Soviet advantage in long-range nuclear arms deployed in Europe and they charged the Administration was delaying the project for arms control reasons.[65]

CHART 2-1

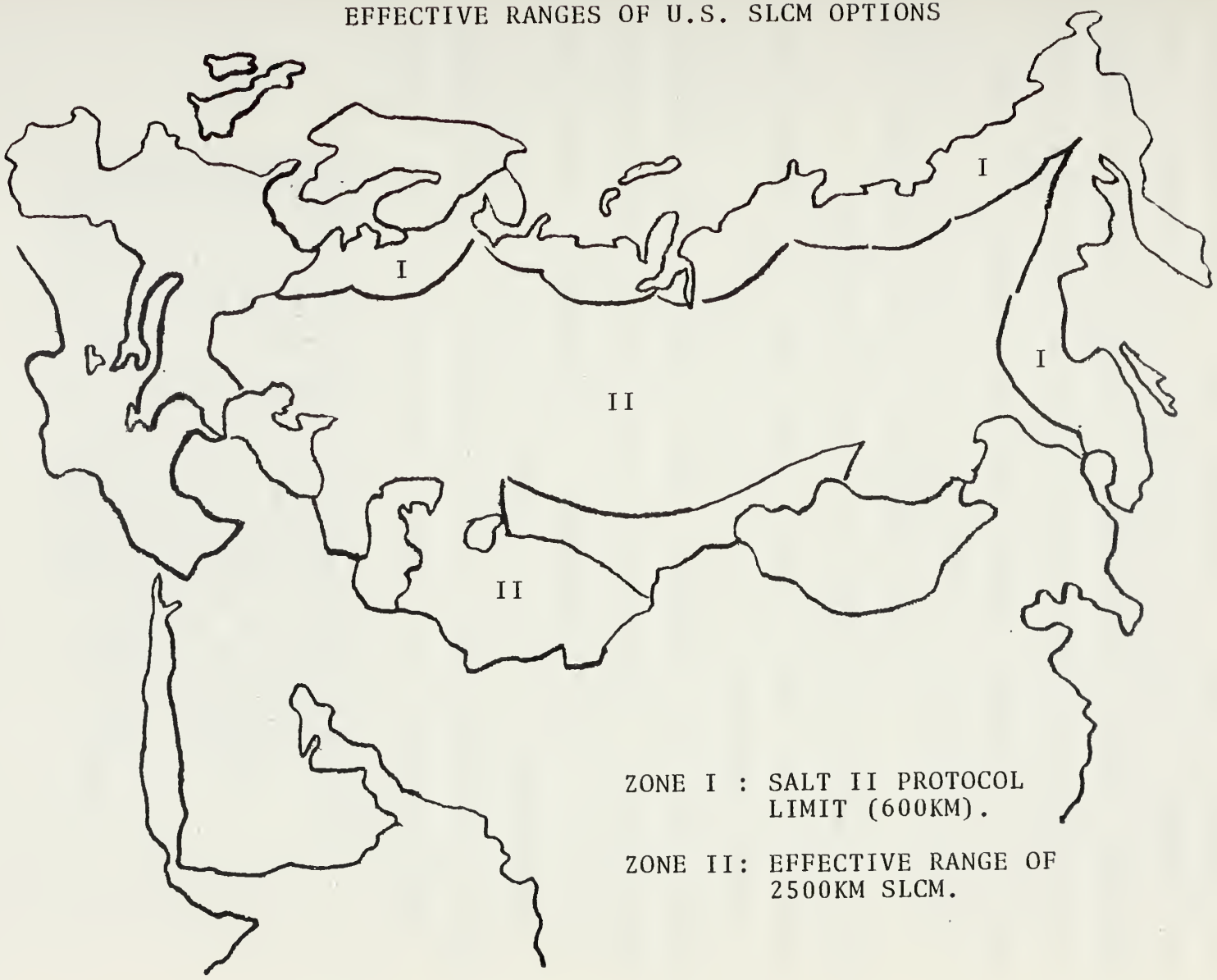
EFFECTIVE COVERAGE OF SALT II SLCM RANGE LIMIT[1]



1. Assumes a 50NM coastal standoff.

CHART 2-2

EFFECTIVE RANGES OF U.S. SLCM OPTIONS



Finally, as reported in the Washington Post in August 1980, Secretary of Defense Harold Brown had told the Navy, after reviewing the Navy's budget plans for FY 1982 and beyond, to move the Tomahawk Land Attack Missile/Nuclear or TLAM/N down a notch in budget planning. "Under Brown's newest timetable, part of this weapon would not go into production until 1983, if then."[66] Although positive linkages between this decision and Salt II have not been established, a possibility does exist that Salt II was an important factor.

Verification poses an additional problem. First, cruise missile testing, unlike ICBMs or SLBMs, can be easily concealed. For example, cruise missile performance characteristics, such as speed, range, endurance, and other characteristics, could be measured in wind tunnels; or on aircraft wing-pylons. Verification is compounded further because it is difficult to determine a cruise missile's range-payload tradeoff without such performance data and payload/fuel capacities. To illustrate this problem, A.A. Tinajero notes:

> a cruise missile armed with a high explosive warhead and range of 600 kilometers or less could be modified internally to carry a smaller and lighter nuclear warhead to significantly greater ranges by trading off payload weight and volume for fuel, and be indistinguishable as to purpose. Such is the case with the Soviet SS-N-3 SHADDOCKS, whose estimated effective range is about 150 nautical miles, but reportedly could triple that range without visible external changes.[67]

An outgrowth of such verification problems are probable asymmetries in observance of the Protocol's limits on SLCMs. The U.S. may impose unilateral constraints to assure domestic critics that we are not in violation, whereas the Soviets need not worry about internal domestic debate on such issues.

3. Joint Statement of Principles

a. Issue of Precedence

One final dimension of SALT II with serious implications for the future of the SLCM pertains to the precedential value of the Protocol. The Administration has emphasized its view that the U.S. is under no obligation to abide by or extend the Protocol beyond December 31, 1981. However, Principle Three, paragraph 3, of the Joint Statement of Principles states that the Parties shall pursue in the course of subsequent negotiations "resolution of the issue included in the Protocol to the Treaty..."[68] General Rowny's interpretation contrasts significantly with that of the Administration. He states "I think that the protocol's only purpose is to set a precedent. Otherwise, why would there be a protocol at all? Why would the Soviets insist that there be a protocol? My logic on that is very simple. If the Protocol is not to be a precedent, and we say that, then let's not have one."[69] William Van Cleave had similar misgivings, and notes "even though these limitations are in the Protocol and will presumably expire after 1981, the principle is established and the precedent set. In both a political and negotiating sense,

this seems to me to be a serious setback,"[70] The Soviets have insisted that the provisions included in the Protocol were intended as an initial temporary restraint, and that these issues were to be the first thing on the agenda during the negotiations in SALT III. This places U.S. SALT III negotiators at an immediate disadvantage, since the agenda formulation process could be a critical factor in the negotiated outcome. SLCMs therefore, immediately becomes subject to the strictures of SALT III, where the Soviets would hold a tactical negotiation advantage in respect to the precedential value of the Protocol, thereby placing U.S. negotiators on the defensive during the next round of SALT.

C. SUMMARY

One can conclude from the observations presented in this chapter that there appear to be both functional and interpretive asymmetries within the context of both SALT I and SALT II outcomes. SALT seems to have been an important factor affecting a number of significant aspects of the U.S. naval force structure. For example, as indicated in this analysis, the ABM Treaty prohibits the development of a sea-based ABM; however, a noticeable disparity exists which places the U.S. Navy at a potential disadvantage if one takes the potential Soviet anti-shipping threat of tactical ballistic missiles (both land-based and sea-based) seriously. The 1972 Interim Agreement gave the Soviets a significant numerical margin in

both SSBNs and SLBMs, and both SALT I and SALT II have given the Soviets an important advantage in ICBM throwweight. Taken in the aggregate, such advantages increase the potential availability and attractiveness of deploying ICBMs or SLBMs in a tactical mode directed against U.S. naval forces at sea. The Backfire bomber exclusion permits the expansion of offensive Soviet-naval aviation to continue without hinderance, assuming that the 30-unit-per year limit conforms to Soviet planning. Finally, the SALT II Protocol, taken in context of the Joint Statement of Principles, could potentially prevent realization of the American SLCM program, while at the same time exempting Soviet SLCMs which are already deployed. On balance, these affects could potentially constrain the ability of the U.S. Navy to expand its sea control and power projection mission effectiveness. In contrast, these outcomes appear to enhance the Soviet Navy's momentum for superiority in all phases of naval warfare, thereby increasing the Soviet naval threat in both nuclear and non-nuclear warfare. Although naval force structures are affected by a number of different factors, the following chapter will primarily examine asymmetries in U.S. and Soviet SALT negotiating approaches, which appear to be an important factor in effecting the naval outcomes identified.

III. NEGOTIATING HISTORY OF KEY TREATY OUTCOMES

In order to test the hypothesis presented in this study, it is necessary to examine the negotiating history of the SALT Treaty outcomes, in an effort to determine the relationship between negotiation behavior and the resultant SALT outcomes. Pursuit of this objective, however, is somewhat constrained by the limited availability of public data in respect to the actual SALT negotiations and its organizational mechanisms, particularly in respect to the Soviet Union. As Thomas Wolfe indicates,

> How the SALT process actually operates in the Soviet Union is sketchily known, and the same is true of the internal organizational arrangements for handling it. This paucity of information in the case of SALT parallels the poor state of knowledge on the inner workings of the Soviet decisionmaking system in general, and in particular on the mechanisms for integrating military policy with political and economic considerations.[1]

Additionally, there is no body of informed public opinion on SALT in the Soviet Union. Thus, analysis of SALT must concentrate on information gleaned strictly from non-Soviet analysts, such as John Newhouse, Thomas Wolfe, and Paul Nitze. Nevertheless, evidence gathered on the basis of this available information should be sufficient to draw tentative conclusions about any causative linkages between negotiating

asymmetries and the outcomes examined in the previous chapter. This chapter will primarily focus on two key areas of analysis. First, the U.S. SALT negotiating approach will be examined. This includes analysis of U.S. SALT organizational and control mechanisms, the effect of the "back channel" negotiations and summit bargaining upon the outcomes in question, and the impact of the negotiations within the U.S. Government. Second, Soviet negotiating style will be examined in comparison with that of the U.S., thereby identifying relevant negotiating asymmetries between the two approaches. It must be recognized at the outset, however, that a variety of additional factors, such as defense spending, inter-service bureaucratic competition etc. are all factors that have an influence upon the naval implications identified in the previous chapter. The purpose in this chapter is to demonstrate that the U.S. negotiating approach in SALT was one of these factors, and that it has had an important affect upon the overall U.S. naval force structure.

A. U.S. NEGOTIATING APPROACH

In the first of his foreign policy addresses to Congress, President Richard M. Nixon identified what he envisioned to be the fundamental prerequisites of a realistic national security policy. In his view, U.S. foreign policy for the 1970's, and the structure of durable peace, would depend upon three distinct components. Partnership and strength

were the first two elements, and negotiation constituted the third. Nixon stated that "our commitment to peace is most convincingly demonstrated in our willingness to negotiate our points of difference in an fair and business-like manner with the Communist countries."[2] Three months earlier, the cornerstone of this principle of negotiation had been poised when the United States and the Soviet Union entered into talks on the limitation of strategic arms.

The U.S. concept of equitable and accommodative negotiation characterized our approach to SALT and is, as K. J. Holsti points out, rooted in the traditional Western style of negotiation. These Western assumptions include confidence that "any agreement can be reached through compromise;" trust that "expressions of good will toward the opponent, as well as frankness and candor in discussions, will produce an atmosphere conducive to compromise;" preference for "compromise and subsequent reconciliation" as opposed to "total victory and vindictiveness;" belief in negotiation as a means of achieving agreement rather than of prolonging conflict; and emphasis on a willingness to compromise, desire for fairness, sincerity, honesty, good will, and cooperation."[3]

Henry Kissinger, explains that there is a tendency on the part of the United States to "believe that peace and stability are 'natural'." Crises, on the otherhand, are perceived as unnatural abberations "caused by personal

ill-will rather than by objective conditions." Kissinger adds that, "if tension persists, it is because Communist leaders continue to be unreasonable; it can be allievated by establishing an atmosphere of trust and good personal relations or by a change of heart on the part of the Soviets."[4] An immediate result of this conceptualization is that U.S. policy toward the Soviet Union has fluctuated between two dichotomous approaches. As Kissinger explains,

> During periods of tension the United States tends to assume that Soviet policy is conducted by highly purposeful ideologically inspired men operating according to careful, long-range plans. During periods of detente, American leaders have often acted as if a settlement could be achieved by good personal relations with their Communist counterparts. Either approach leads to an avoidance of concreteness. When the Soviets are aggressive, negotiations are believed to be useless, and when they are conciliatory; there is a reluctance to disturb the favorable atmosphere.[5]

From the negotiation perspective, it has been generally maintained that the negotiating styles which are adopted by nations generally tend to represent "recurrent behavioral phenomena which are relatively independent of specific issue content or the idiosyncratic characteristics of individual diplomats."[6] Although negotiation strategy is also a function of such factors as a government's strategic assessment, it is nonetheless, as former American Ambassador Arthur H. Dean stresses, "a kind of national signature, reflecting not only official policies, but also characteristics

of the society from which the diplomat comes and the outlook in which he has been bred."[7] Most significantly, the particular negotiation methods employed by a nation "influences heavily the reactions of a particular diplomat and the procedures he will be likely to follow."[8]

An additional trait in the methodological pattern of negotiation was identified by the British diplomat Sir Harold Nicolson, who noted that "all diplomatists (the professionals scarcely less than the amateurs) are inclined to assume (erroneously) that their own conception of the art of negotiation is shared more or less by those foreigners with whom they are negotiating."[9] As Louis J. Samelson remarks, such mirror imaging frequently obscures from Western negotiators the significance of variation in negotiation behavior. Therefore, a "failure to perceive divergencies in method and approach can lead to serious difficulties in achieving an effective resolution of outstanding conflicts."[10]

In his assessment of SALT, William Van Cleave believes that the U.S. approach to negotiation has essentially been unable to integrate and utilize negotiation as an effective instrument of a broad and coherent strategic policy. As he indicates, the underlying cause of this failure stems from the aforementioned assumptions, which have been inherently adapted by the U.S.:

> Driven by an assumption that arms control negotiations are uniquely a cooperative process, wherein compromise is a mutual

> objective and negotiation a non-zero sum game affording both sides equal advantages, the United States has found it difficult to view arms control negotiations in terms of political competition, as a struggle for advantage, or as a means of achieving or supporting other foreign policy goals external to the negotiations themselves.[11]

This U.S. approach to SALT therefore assumes that both sides share a common perception of the objectives and urgencies at hand. U.S. goals have included the recognition of and the need to preserve parity, mutual deterrence and strategic stability. As Garthoff comments,

> The two governments agreed explicity that a main objective of the talks would be to achieve and to maintain stable strategic deterrence between the United States and the Soviet Union through agreed limitations on the deployment of strategic offensive and defensive arms. They agreed implicitly that strategic parity should be accepted and maintained, and more specifically that the limitations would be balanced so that neither side could obtain any military advantage, and equal security would be assured for both sides.[12]

Strongly influencing SALT was also the concept of strategic parity. The significance of this conceptual principle was clearly demonstrated by the hesitancy with which the Soviets originally approached SALT in respect to establishing a firm commitment for beginning negotiation. When the Johnson Administration first initiated its exploratory probes with the Soviets in an effort to examine the possibility of

establishing what was later to become SALT, the Soviets were clearly behind the U.S. in strategic strength. As Garthoff indicates,

> One reason for the delay was the disparity in strategic strength at the time SALT was proposed. In 1967, the strategic force levels of the Soviet Union were considerably inferior to those of the United States and the Russians agreed to begin the talks only when they were in reach of numerical parity in strategic intercontinental systems...[13]

Thus, although SALT was highly publicized in the U.S., "the momentum gathering behind the talks was deceptive" and that "it was generated in Washington, not Moscow."[14] The Soviets, highly suspicious of U.S. motivations, therefore, approached SALT with responsive caution. It was not until mid-1968 that the Soviets considered themselves sufficiently close to strategic parity with the United States. The issue of parity therefore became a key mechanism is formulating the SALT neogtiation process. In the American view, SALT was, as Newhouse remarked, based upon a mutual need to solemnize this principle, according to which "each assumes the other is negotiating because parity has been achieved."[15]

It can be argued, however, that the principle of parity could also have been linked to Soviet negotiating strategy, thereby having an influence on the SALT outcomes. Louis Karrass in his broad study of the relationship of negetiator skill and power as determinants of negotiation outcome, concluded that

> Bargaining outcome was found to be a direct function of negotiator ability where the power balance between adversaries was approximately equal. In addition, the greater the difference in ability between the opposing negotiators, the more favorable was the outcome for the high trait score negotiator.[16]

Although this particular study did not specifically address SALT in its analysis, there are nevertheless some important parallels. If, as Newhouse and others contend, SALT began under the condition of relative parity, then it would stand to reason that its outcomes would be dependent upon the relationship which existed between the negotiating approaches of the U.S. and the Soviet Union.

1. U.S. Strategic Concept in SALT Years

Parity, as seen from the U.S., suited the U.S. strategic philosophy of mutual deterrence, since it conceded to both sides a capability to inflict massive retaliatory punishment on the countervalue targets of an attacking opponent. The U.S. therefore, approached SALT with a willingness to accept mutual assured destruction (MAD), which, as perceived by the U.S., offered the best assurance of strategic stability. As Wolfe indicates, this U.S. concept of deterrence was also rooted

> in the proposition that nuclear war would be unwinnable in any meaningful political sense. Although amended criteria for strategic force size and design began to be advanced in 1974 after James R. Schlesinger became Secretary of Defense... it seems fair to say that throughout SALT I and at

> least the first part of SALT II the mutual assured destruction concept formed the central axis of consensus for the making of major strategic posture and arms control decisions in the United States.[17]

Mutual assured destruction therefore became the backbone of the U.S. strategic doctrine which predominantly prevailed during SALT, thereby significantly influencing not only U.S. arms control policy, but also force planning, operational strategies, weapons choice, and R & D. SALT became an instrument by which the U.S. could guarantee MAD at the lowest level of arms effort possible. Under the Nixon Administration, this doctrine translated into a defense planning approach known as sufficiency.

> It needs to be understood with total clarity.... that defense programs are not infinitely adjustable... there is an absolute point below which our security forces must never be allowed to go. That is the level of sufficiency. Above or at that level our defense forces protect national security adequately. Below that level is one vast undifferentiated area of no security at all. For it serves no purpose in conflicts between nations to have been almost strong enough.[18]

Characteristic of this U.S. approach to SALT are the outcomes prohibiting extensive anti-ballistic missile deployment and the negotiated asymmetries in respect to SSBN and SLBM launcher levels. As Newhouse indicates, the overriding concern of the U.S. during SALT I was constraining Soviet ABM deployment and the potential threat of heavy land-based Soviet missiles to our Minuteman force. Therefore, all of

the U.S. neogtiation options had been shaped to constrain this threat, thereby ensuring the enhancement of MAD. For example, the unidirectional "freedom to mix" which emerged in the SALT I outcome was primarily designed by the U.S. to encourage the Soviets to substitute smaller and less accurate sea-based missiles for the heavier and MAD-destabilizing land-based systems, like the Soviet SS-9 ICBM.[29] In other words, the U.S. was attempting to diffuse Soviet first strike capability by channeling their strategic efforts out to sea, where the smaller, less accurate, yet more survivable sea-based SLBMs would continue to reinforce U.S. MAD-influenced policies. This approach to SALT, however, was highly dependent upon mutuality in strategic doctrine. As will be discussed later, this was not the case. Soviet strategic philosophy contrasted sharply with that of the U.S. and strongly influenced the Soviet approach to SALT, which was highly divergent from that of the U.S.

2. U.S. Organizational and Control Mechanisms

The organizational and control aspects of SALT which emerged in the U.S. reflect significant variations in time, and have evolved through three distinct phases. The SALT apparatus which was produced under the Johnson Administration could be characterized as a consensus-building arrangement, with the White House essentially divorced from the internal bargaining process. As Newhouse remarks,

> Neither Johnson nor his staff would take part in bureaucracy's epic struggle to produce not just a "simple, clear proposal," but one that would actually make a serious matters of SALT. In Johnson's day, there was no Henry Kissinger to hold the bureaucracy in line and force up Presidential options, as distinct from the preferences of the various parts of the government.[20]

Furthermore, the key behind the bureaucracy's acceptance of any SALT agreement was significantly dependent upon approval by the Joint Chiefs of Staff. As Newhouse concludes, "Unlike Nixon, Johnson - as everyone in government knew - wanted agreement, not options. This meant that the Joint Chiefs had to be on board."[21]

As events unfolded, however, a major shift in this SALT apparatus would take place prior to negotiation. The Soviet invasion of Czecholovakia in 1968 acted as a braking mechanism, albeit temporarily, of the SALT momemtum which had developed. Additionally, as a result of the November elections, Johnson's Administration found itself in a lame-duck transition. The SALT organizational and control machinery which subsequently materialized under the incoming Nixon Administration evolved into one of highly centralized White House control. As Thomas Wolfe writes, this new apparatus

> was shaped so as to make it fully responsive to centralized White House direction within the National Security Council (NSC) system... The new structure would also provide the instruments

> for exercising close White House control over the negotiating aspects of the SALT process as well.[22]

The control of this new SALT organization lay in the establishment of the Verification Panel, which Kissinger chaired and created in July 1969. The rationale behind such a centralized system was to establish a process which would minimize the time lag in policy formulation which was so characteristic of the previous bureaucratic process of consensus building. This centralized arrangement "virtually eliminated the narrow adversary approach to arms limitation hitherto practiced within the U.S. government, which used to provoke bitter intramural controversies leading to stultified international negotiations."[23] This institutional center of power for SALT matters functioned, with only minor alterations, throughout the Nixon and Ford Administrations.

As the negotiations for SALT I got underway, the Nixon-Kissinger team felt quite confident that if the Soviets weren't amenable to the optional proposals created by their White House-centered system, cooperative changes could be quickly made without seeing matters deadlocked by long internal bureaucratic bargaining. As Newhouse remarks, the flexibility offered by such a system undoubtedly has its advantages. However, consistency and patience are also extremely useful tools in negotiation, and the U.S. approach to negotiation, particularly in SALT I, failed in many instances to utilize or fully appreciate the value of these last two negotiation

techniques. U.S. proposals would be rejected outright by the Soviets. In turn, the U.S. would withdraw its option and offer a new proposal in quick succession. As Newhouse remarks, "opinion divides on whether the White House should have offered the Soviets so many proposals in so short a time. When two negotiating parties are far apart, they normally hold for some time to fixed positions, inching but slowly toward each other and the eventual agreement or failure to agree."[24] The U.S. response to traditional and normal Soviet caution was to break the tedium which the Soviet approach harbored by establishing a fast pace of successive offers. However,

> People accustomed to dealing with the Russians worried that Washington's flexibility might confuse them, or tempt them, or end by doing both. Confusion breeds suspicion, and suspicion softens nobody's negotiating position. Alternatively, Moscow might have mistakenly assumed that Washington's interest in a SALT agreement exceeded its own and, if properly exploited, might return numerous concessions.[25]

Although the tight centralized control of SALT in the White House did shorten reaction time in Washington, the decision-making process in Moscow was still a lengthy and unwieldy process. Additionally, the bureaucratic role in SALT of the Soviet military was more acute than that of its U.S. counterpart.

Garthoff argues that the U.S. negotiation tactic of taking initiative was advantageous because the U.S. thereby

had an opportunity to maneuver into position first. Additionally, given the inflexibility of the Soviet negotiators and the constraining effect of the Soviet bureaucracy, the U.S. approach offered the negotiating latitude necessary toward finding an agreed negotiating position.[26]

On the other hand, such an approach creates the risk of auto-negotiation. U. Alexis Johnson, who took over as head of the U.S. SALT delegation in early 1973, outlined the perplexities of negotiating in such a manner. As he reportedly explained,

> Each time the Soviets would reject an American proposal the American negotiators would revise it in order to make the proposal more acceptable and then resubmit it. The Soviets may reject the revision in which case the Americans would confer on further revisions. And so forth.[27]

As he further noted, the danger with such a negotiation position was that, if not careful, the U.S. would in time be negotiating with itself. Newhouse also makes reference to the quandary effects of Soviet inflexibility, by noting that "the effect was to reinforce a suspicion among the Americans that it was they who were negotiating with themselves."[28] He continues by citing the thoughts of a "vexed American official" who remarked,

> We have tabled three proposals in minute detail. They complain bitterly about the degree of detail, yet they've learned a great deal about our programs. They've told us nothing. All we've gotten in

> return is general statements and whatever they want in the way of agreement is supposed to be based on our acceptance of these general statements. The bulk of this negotiation is not bilateral but internal. We make presentations. They complain, because by objecting to the wealth of detail they get more of it. They'll say for example. "We do not understand the following point." That obliges us to get into even more detail. Let's face it. They are learning a lot, but nothing else is happening.[29]

The Soviets therefore went into the SALT negotiations with an "intelligence" advantage, given their excellent opportunity for gaining good knowledge of U.S. defense programs and weapon systems through additional channels of information. These sources are wide and varied. Such items in the U.S. are highly scrutinized publicly, where options are thrashed out in the open. The presence of Soviet embassy personnel at defense hearings in Congress demonstrates that the Soviets exercise this opportunity. Additional sources include relative easy access to unclassified government documents and publications, data in technical journals, and articles written by academic scholars and research institutes. The U.S., on the other hand, has extremely poor knowledge of Soviet decision-making and force program objectives, and that which is known is largely tentative and based upon educated guesswork. As Van Cleave argues, this asymmetry in knolwedge has both political and military advantages for the Soviets. "Soviet defense programs must be divined on

the basis of intelligence guesswork predicated upon incomplete information." The information gap presented by this asymmetry can lead to underestimating projected Soviet capabilities:

> Our projections of the Soviet build-up over the past several years regularly had it leveling off and stopping at far lower levels than were actually attained. The premise of our preparations for SALT I was that the Soviets by 1969 had attained an acceptable strategic balance with the United States and were willing to freeze that balance.[30]

Additionally this asymmetry raises the risk of technological surprise and shortens the lead time necessary to develop and deploy effective countermeasures.

> Coupled with the amorphous tenets of an assured destruction strategic philosophy on the U.S. side, it encourages rationalization regarding the significance of events that had been unanticipated. And coupled with a lingering, often smug belief in the existence and indefinite continuation of U.S. technology superiority, it fosters an unwarranted disdain toward both actual and possible Soviet accomplishments.[31]

The effect of this asymmetry is clearly reflected in the final SALT I outcome establishing numerical limits on SSBN and SLBM launcher levels. As previously mentioned, the U.S. had no precise calculation of Soviet SSBN numbers with which to establish the negotiated baseline figures. In May 1972, U.S. intelligence estimates varied, but generally concluded that the Soviets had between 41 and 43 SSBNs. However, in Helsinki, the Soviets abruptly laid claim to precisely 48

SSBNs. This was 5 to 7 more than had been estimated by the U.S. As Newhouse noted, "to accept the Russians' count also meant accepting that they were that much closer to the magic numbers 62 and 950 and would not be obliged to replace nearly as many old weapons in reaching these totals. American technicians called this the free ride issue."[32] Kissinger himself admits that he and his staff had no concrete evidence to work with in this respect. Therefore, he and his staff conveniently side stepped the issue. As he remarked,

> In order to avoid the impossible numbers game of agreeing on how many submarines the Soviets actually had, the highly esoteric debates about, what constituted a submarine actually "under construction," and the dispute over how many were in the D-class and Y-class, my staff and I had worked out a different approach.[33]

Soviet concealment and deception activity in their submarine shipyard construction facilities did not improve the situation. For example, since 1966, the Soviets were reported to have built decoy submarines in an attempt to confuse U.S. intelligence. In 1970, the Soviets began construction of three tunnels at naval bases to deny information on submarine readiness status. Such activity continued after SALT I, and increased substantially in 1974, when the U.S. detected broad efforts by the Soviets to conceal their mobile missile program, the production of ICBMs, and the construction of SSBNs. In this latter case, concealment involved the placing of large canvas cover's over missile submarine construction and refit facilities at the Severomorsk shipyard.[34]

3. The U.S. Military's Role in SALT

The last phase of the U.S. organizational machinery for dealing with SALT emerged in January 1977, under the Carter Administration, and reflected a shift back to the diffused bureaucratic style which typified SALT policy making under the Johnson Administration. The tightly centralized control of SALT was therefore redistributed to a broader base of policymaking influence and authority. However, the leading players in this new arrangement were all civilian policymakers. Principally the Secretary of State, Secretary of Defense, the Director of ACDA, the Chief SALT Ambassador, the Director of the CIA, and the President's National Security Affairs advisor. Military participation in the process, such as that by the Joint Chiefs of Staff, remained at a subservient level. Furthermore, the judgements of the JCS were consistently overruled by civilians on a number of key outcomes relevant to this analysis. As General Rowny, the chief SALT representative of the JCS, testifies,

> The Chiefs did not want to have a protocol, they did not want to constrain cruise missiles at all, and they wanted deeper reductions. They wanted and have consistently wanted and recommended that the Backfire be counted... I would say in the main their objections were simply overruled.[35]

Despite these objections, the SALT II outcomes excluded the Backfire, included a Protocol, and subjected the cruise missile to restrictions which the U.S. had explicitly

maintained during the negotiations were not to be covered by the agreement. In 1977, President Carter himself insisted in a press interview that "we are not prepared to accept a unilateral prohibition against the development of or deployment of the cruise missile absent some equivalent response from the Soviet Union including the Backfire bomber."[36] However, at the negotiations the U.S. did not stick to this position. As reflected in Department of Defense testimony on SALT II, the Protocol's limitations on SLCMs and GLCMs exist because

> ... The Soviets insisted that SALT II should contain some limits on SLCMs and GLCMs, and it became clear in the post-Vladivostok negotiations that an agreement could not be concluded without some GLCM and SLCM limits...[37]

However, there was no equivalent cooperative exchange on behalf of the Soviet Union.

As regards the composition of the U.S. SALT delegation, it also reflected tremendous variations over time. To date, it has had four different delegation heads. Furthermore, characteristic of its make-up, the U.S. delegation often displayed open bureaucratic divergencies during the negotiations, thereby demonstrating a lack of U.S. cohesiveness in respect to the issues being considered. Consequently, this negotiating style effectively reinforced the delaying action tactics utilized by the Soviet delegation in an effort to get as many concessions as possible from the U.S.

4. Back Channel Negotiations and the U.S. Delegation

A key area of criticism in respect to U.S. SALT negotiation behavior centers upon the heavy reliance on secret 'back channel' negotiations and its subsequent effect upon the eventual outcomes. Although the utilization of parallel negotiation channels is useful in some negotiating circumstances, evidence suggest that, as used in SALT, such exchanges had an adverse affect upon outcome determination. This is particularly true in respect to the SSBN and SLBM launcher limits which were established in the Interim Agreement and its respective Protocol.

Several motivational factors might explain this U.S. dependence upon 'back channel' bargaining. First, as Garthoff indicated, this method of negotiation suited Kissinger's style of personal diplomatic involvement. However, he observed that Kissinger "came to resent, and perhaps be jealous of the professionals who were effective;" therefore, he "curtailed the role of the professionals and in the process spread himself too thin."[38] Nixon's passion for secrecy was also an important factor. As Paul Nitze explains,

> Nixon had such a passion for secrecy and such a lack of confidence in the reliability and judgement of what he considered to be the bureaucracy, that not even the head of the U.S. delegation was kept precisely informed of what was happening at the higher level.[39]

The secrecy surrounding these parallel high level exchanges was in fact so tight that the American SALT

negotiators first heard about them from members of the Soviet delegation instead of from U.S. sources.[40]

The pattern of parallel secret 'back channel' negotiations also served the political needs of the Nixon Administration. As Garthoff wrote, Nixon "increasingly wanted to achieve a SALT agreement as a symbol of a successful detente policy."[41] Notes taken by Admiral Zumwalt in his capacity as Chief of Naval Operations support Garthoff's claim of a political linkage to SALT. In a conversation he had with Kissinger, Zumwalt recorded,

> K. spoke again about his pleasure that he was able to overturn the bureaucracy to keep SALT going, last August. I suggested that one could always be successful in negotiating with the Russians if willing to move to their position. He smiled and said, "Only three-quarters of the way." I urged that we take longer to debate the Soviets on each position and not move too fast. K. said, "That's easy for you to say, you don't have to run for reelection."[42]

As Garthoff indicates, such political deadlines meant Nixon had to aim "for a SALT agreement at the summit he had planned for mid-1972, a few months before the national election." Garthoff continues by observing that

> For a time this involved a charade to keep from reaching agreement on an ABM Treaty too quickly, while in the end it meant reaching agreement under pressure involving haphazard personal negotiations in the Kremlin with the President and Dr. Kissinger seeking to patch together an Interim Agreement on levels of strategic offensive ballistic missiles.[43]

The issue over a separate ABM Treaty, as opposed to the original intention of negotiating a single comprehensive treaty, had been worked out by the first series of these 'back channel' negotiations in early 1971. By May 1971, the ABM Treaty and its related understandings had been entirely agreed upon. Thus, the crucial issues which remained open for negotiation pertained to the interim measures to restrict offensive strategic weapons. Specifically, the primary points of conflict concerned the issue of SLBM levels and, secondly, the problem of defining and constraining 'heavy' ICBMs. This question of including SLBM launchers in the Interim Agreement clearly reveals a process of negotiation style which was less than optimum for the United States.

In February of 1971, in spite of strong bureaucratic support for an established limit on submarine-launched ballistic missiles, Kissinger conveyed to the Soviets through the secret 'back channel' that "the American side would not insist on their inclusion."[44] To complicate the negotiation aspects of SALT, this position was established without the knowledge of the SALT delegation. Thus, the May 20 breakthrough agreement which President Nixon declared as "a major step in breaking the stalemate on nuclear arms talks" specifically excluded provisions regarding SLBM limitations. As Newhouse indicates,

> Kissinger had not pressed for including SLBMs in the May 20 accord. With the Russians trailing the United States in both the operational number and the quality of boats, he feared that making an issue of SLBM's might produce another stalemate.[45]

As a result of this 'back channel' accord, the U.S. SALT delegation lost important negotiating leverage. The question of including a freeze on SLBM s had been an open source of negotiation contention since May 1971. The Soviets, however, did not believe the U.S. delegations persistent efforts over the next ten month period to include SLBM s . In large measure, this was because, as already noted, it had received through the 'back channel' a clear indication from Kissinger that the U.S. would not insist upon it.

Bureaucratic momemtum in support of SLBM inclusion finally forced the White House to acquiesce to this position, and as Newhouse points out,

> Indeed, in the weeks preceeding the Moscow May Summit, the SLBM limit had become Washington's top priority item and the toughest piece of bargaining in the back channel, where it was finally worked out.[46]

The available evidence on this SLBM limit is fragmentary and anecdotal. Zumwalt notes that

> The President was seriously considering the substance of the SLBM argument pro and con while Kissinger was searching for a tactic that would enable him to wiggle around the issue. "Kissinger said he didn't understand the logic of the Chiefs that if SLBMs are not included, the Chiefs want no treaty,"

> reads a line in some notes I made at a telephone conversation I had with Admiral Moorer just after he had attended a National Security Council meeting on SALT on 17 March.[47]

Zumwalt adds that Kissinger tried to bring additional pressure upon the JCS. Admiral Moorer reportedly told Zumwalt that "Kissinger says the President might order the JCS to support a no-SLBM decision," but, as Zumwalt remarks, "That was evidently merely Henry making a muscle. When the President made his decision on 23 March, it went mostly the other way and in support of the JCS position on SLBMs."[48]

The Soviets, who had been extremely tough and articulate about their position against SLBM inclusion were understandably not pleased with this sudden setback so late in the negotiations. As the negotiation events unfolded, the U.S. was able to gain Soviet acquiescence to SLBM inclusion after 'back channel' negotiations with Kissinger in April 1972. However, the price in terms of Treaty outcome would be high.

The U.S. delegation, in accordance with their instuctions, negotiated for a freeze at the current number of Soviet SLBM launchers on submarines operational and under construction. The Soviets, on the other hand, were adamant on having a higher figure and on including only modern nuclear submarine types. The interaction of domestic political time and the mistake of making 'back channel' assurances by Kissinger allowed the Soviets to take the negotiation initiative. A freeze would only be accepted in return for

numerical superiority in submarines and SLBM launchers. The details of this arrangement were to be worked out during the Moscow Summit in May 1972.

Historically, summits have functioned as a stamp of approval for agreements which have for the most part already been worked out. However, as Wolfe indicates, SALT Summits have in practice "not turned out to be mere symbolic sessions for rubberstamping previously prepared accords." Rather, he notes, "They appear to have become in some degree vehicles for direct intervention in the SALT negotiating process, with the top leaders on both sides giving their attention to substantive issues left unresolved through other avenues of negotiation."[49] As Gerald Steibel remarks, recent U.S. negotiating behavior reflects a shift in the primary object of negotiation. SALT has become an end in itself, rather than just a means. This shift is underscored by the use of summit diplomacy "before the specifics of agreements have been worked out at lower levels--a frank departure from the older axiom that the time for summitry was after the agreements had been arrived at."[50]

The outcomes which emerged from the Moscow Summit negotiations reflected a major U.S. compromise on SLBM replacement levels and produced an agreement which was embedded with an imprecise and ambiguous treaty text. As Garthoff notes, the Moscow negotiations by the Presidential Party in May 1972

> contributed to the confusion and some minor concessions and ambiguities for SALT II that need not have been incurred. Above all, they contributed greatly to subsequent loss of credibility and doubt over SALT and detente because of the secret and haphazard way they were concluded, and also because of the political over-sell of the Moscow Summit. Indeed, they represented a model of how not to conduct negotiations - against a political deadline, by an ill-prepared political negotiation team (and without the best technical negotiating advise and assistance), seeking unattainable objectives, and then settling for murky and ambiguous cosmetic formulations to cover over the situation.[51]

This ambiguity opened up a number of exploitable loopholes for the Soviets, which took an additional two years of negotiation to resolve. As was briefly discussed in the previous chapter, a major loophole existed in respect to Soviet G-class SSB's and their respective SLBM launchers. Basically, the interpretive controversy which ensued between the U.S. and Soviet negotiators had two dimensions.

The first concerned the issue of retiring the SLBMs deployed on the G-class submarines. According to the Protocol's second provision, both older ICBM s and older SLBMs could be replaced by an equal number of new SLBMs on Nuclear-powered submarines. The Soviets interpreted this to mean that the SLBMs on their G-class SSBs could be replaced with SLBMs on modern submarines in order to reach the 950 ceiling authorized by the agreement. This would have upgraded the Soviet SLBM force inventory while at the same time minimizing SALT's

impact upon Soviet ICBM deactivation, which did not serve the U.S. SALT objective of achieving maximum reductions in Soviet ICBM throwweight. This dispute was not resolved until after Treaty signature. On July 24, 1972, an agreed clarification established that the 950 ceiling could only be reached by retiring Soviet ICBMs.[52] The point to emphasize here is that this clarification should have been worked out prior to any SALT agreement.

The second negotiated loophole relates to Soviet efforts to modernize these same SLBMs. This issue was complicated because of a new ambiguity in the definitions which were established in the July 24 agreed clarification. As defined in this agreement, modern SLBMs were said to be SLBMs which were deployed on nuclear-powered submarines commissioned in the Soviet Union since 1965. Given this definition, the Soviets concluded that they were permitted to deploy newer SLBM on the 22 G-class submarines, provided they had not been previously deployed on any of their nuclear-powered submarines. Furthermore, these were not to be counted in the 740 and 950 SLBM launcher ceilings. Admiral Zumwalt reportedly testified before the House Select Committee on Intelligence that Kissinger

> excluded from negotiations U.S. experts who could have avoided ambiguous language in the agreements..[53]

and added that Kissinger

> entered into a secret agreement after SALT I was signed to plug a loophole resulting from "sloppy negotiating" that would have permitted the USSR to have an additional 210 SS-N-13 SLBMs deployed on its diesel-powered Golf-class submarines.[54]

This second loophole was not blocked until the Moscow Summit in 1974, when 'modern' SLBMs were redefined to be those SLBMs which had been developed after 1964, irrespective of platform characteristics.

Henry Kissinger's account of the SLBM formula conveniently omits any mention of these post-SALT I negotiation difficulties. According to him, the final compromise he and his staff had finally drafted in May 1972 was that

> We would not insist on counting the sixty old missiles on G-class submarines in the totals unless they were modernized, but existing missiles on G-class boats could not be "traded in" for missiles on new submarines. This served two purposes. To stay below the ceiling of 950, the Soviets would have to dismantle ICBMs and missiles on nuclear-powered submarines; and they could not put modern missiles on diesel boats except by counting them - unlikely as this was...[55]

If in fact these had been Kissinger's intentions, then the SALT I outcomes clearly indicate that his negotiation effort was unable to translate these objectives into a precisely defined negotiated document.

5. U.S. Approaches in SALT II - The Case of Cruise Missiles

The SALT II negotiations on the cruise missile and the Backfire bomber also reveal a weakness in respect to the U.S. negotiation approach to SALT.

Throughout the SALT II negotiation process, Soviet negotiators have been acutely sensitive to U.S. efforts to develop cruise missiles and to transfer such technology to NATO countries. Such a position was clearly reflected in an article written by the Soviet news agency TASS, which argued that the

> program for building the so-called cruise missiles which is being promoted by the pentagon and the military industrial complex, is not only in the way of a Soviet-American agreement on strategic arms limitation, but is fraught with considerable complications at future negotiations between the two countries in the field.[56]

In contrast to the inflexible and assertive positioning by the Soviets in respect to cruise missiles, the U.S. response reflected a cooperative approach which continued to compromise the American position in search of a mutually acceptable solution. For example, in January 1977, President Carter announced in an interview that he would not let disagreement over the U.S. cruise missile and the Soviet Backfire bomber stand in the way of a new SALT agreement.[57] In March 1977, the Soviets identified the cruise missile as the chief obstacle to progress in the SALT II negotiations, and refused to advance the pace of the talks until unilateral concessions had been made by the U.S. in limiting cruise missiles.

Of interest is the fact that the U.S. had already offered a number of major compromise solutions. For example,

as early as January 1976, the U.S. SALT II delegation offered a compromise which attempted to link deployment of U.S. cruise missiles to the deployment of the Soviet Backfire bomber. Basically, this compromise offered the Soviets a limited deployment of 250 Backfire bombers between 1977 and 1982. After this period, the Soviets would have been permitted to exceed this limit and deploy additional Backfires. In return, the U.S. offered to restrict the deployment of SLCMs with a range greater than 600km to no more than 25 surface ships with a maximum of 10 missiles per ship. Neither the Backfires nor the 250 SLCMs would be included as part of the SALT II aggregate ceiling. Additionally, the U.S. consented to a range limitation of 600km for submarine-launched cruise missiles.[58] The Soviets, however, were adamant about further neutralization of long-range strategic cruise missiles, particularly the SLCM and GLCM variants, and were therefore unwilling to accept this proposal. In an effort to secure even more stringent limitations on the deployment of cruise missiles, they countered the U.S. proposal with a series of their own. They argued that all new and modern SLCMs and GLCMs were to be limited to a range of 600km. Furthermore, bombers equipped with ALCMs were to be counted under the 1,320 launcher ceiling established at Vladivostok. Additionally, the Soviets continued to reject any attempts by the U.S. to link the status of their Backfire bomber to the issue over cruise missiles.

At Geneva, in October 1977, the U.S. negotiation position eroded further. Under the terms proposed, the U.S. suggested that SLCMs and GLCMs be restricted to a range of 600km for a Protocol period of 3 years. In exchange, there would be no formal agreement restricting the Backfire bomber, providing the Soviets gave an assurance that deployment of the Backfire bomber would not be in a mode which would be threatening to the U.S. These events underscore a weakness in the U.S. pattern of negotiation in respect to the cruise missile and the Backfire bomber.

As previously indicated, proponents of the SALT II Treaty argued that the limitations on SLCM and GLCM deployments are only temporary, and that they do not place serious constraints upon the future deployment of the long-range cruise missile program. However, the Soviets continued to view things differently, and have clearly stated that a failure to extend the Protocol's provisions would be considered contrary to the spirit of the SALT II Treaty. For example, this Soviet perspective was clearly evident in the following Pravda statement

> These figures (U.S. SALT critics) would like to remove from the limitations sea-launched and surface-launched cruise missiles. This is in fact a blatant attempt to insure right now that after the three-year term of the protocol ends there is freedom of action to develop such missiles and increase their agreed range above 600km, and ultimately to retain the possibility of deploying them outside the United

> States--that is, as close as possible to the USSR's borders. Comment, as they say, is superfluous. It is surely obvious that this is yet another attempt to emasculate the limitations already agreed on and to wreck the agreement as a whole.[59]

As Robert Moffit has asked,

> If the Protocol does not really limit American options on the cruise missile, what is the point of Soviet persistence and American agreement? If the United States intends to proceed with its long-range cruise missile program after the three year Protocol expires, it is only inviting a showdown three years hence.[60]

6. Defense Spending

In addition to the foregoing considerations, a reasonable case can be made that disparity in defense spending was also a contributing factor to Treaty outcome determination. It must be kept in mind, however, that analyses vary and experts disagree as to the magnitude of this disparity. All apparently agree that the Soviet Union spends substantially more than the United States. For example, a CIA comparison between U.S. and Soviet defense spending trends published in 1979 indicated that between the years 1967-77, Soviet defense spending (in constant 1970 prices) grew at an average annual rate of about 4 to 5 percent, and that notwithstanding economic difficulties in other sectors of the economy, "all the evidence available to us on Soviet defense programs underway and planned suggests that the long-term upward trend in allocation of resources to defense is likely to continue into the 1980's."[61] Of this spending, slightly over 10 percent

of the total was allocated for intercontinental attack forces subject to SALT II limitation, and "a SALT II agreement along the lines currently being discussed would not, in itself, significantly alter this projection."[62] A study by the Rand Corporation revealed similar results: "the magnitude of the disparity in many of the mission areas is impressively large: a three-to-one advantage to the Soviet Union in strategic forces spending over the past half-decade..."[63] Such examples are succinctly illustrative of the political will behind Soviet defense spending.

In contrast, throughout the SALT process, U.S. defense spending has been constricted by budgetary factors. As Kissinger indicates, at the time of SALT I, "at a time when the Soviet buildup required urgent reexamination of strategic doctrine and of forces, the energies of the Executive were consumed by a rear guard action to preserve a minimal arsenal. Pentagon planners were forced to concentrate on preserving the existing force structure rather than adapting it to changed circumstances."[64] Fundamentally, societal constraints became a major inhibiting factor, as demonstrated by a national mood during SALT I and much of SALT II that was pervasively antimilitary and overwhelmingly hostile to defense spending (as heightened by the domestic upheaval over Vietnam). Given such a domestically constrained atmosphere with increasing budgetary pressures directed against defense spending, Kissinger argued that if the Administration

wanted to maintain an adequate defense program, it was "increasingly pushed into the 'bargaining chip' rationale for individual weapon programs - that is, arguing that it was building them not to fulfill strategic purposes but in order to give them up in arms control negotiations."[65] Unfortunately, examination of the Treaty outcomes demonstrates the incompatibility of such logic, given the contrasting negotiating approaches between the U.S. and Soviets in SALT.

B. SOVIET NEGOTIATING STYLE

The orientation of Soviet negotiation style contrasted sharply to that which governed the U.S. According to William Van Cleave, the Soviets approach to SALT reflected both an extension of politics and of strategy. Thus, the essence of this approach stressed competition for advantage. Paul Nitze has similar views, and argues that the Soviets have looked at SALT primarily from their own political viewpoint and have sought to optimize Soviet gains through a highly one-sided negotiating strategy.

This approach finds substance in the underlying difference in strategic doctrine between the Soviet Union and the United States. In comparison to the U.S. view of mutual deterrence, the Soviet conception of strategic stability does not embrace the same functional strategic logic. Although highly concerned about deterring a nuclear war, the Soviet prescription for deterrence "stipulates that Soviet strategic forces and

plans should strive in all available ways to enhance the prospect that the Soviet Union could survive as a nation and, in some politically and militarily meaningful way, defeat the main enemy should deterrence fail - and by this striving - help deter or prevent nuclear war, along with the attainment of other strategic and foreign policy goals."[66] As Wolfe indicates, this approach has at times been labeled "deterrence through denial."

The Soviet approach to SALT can be characterized as maximalist positioning or sham bargaining, which requires taking an extreme negotiation position at the outset of negotiations. This negotiation technique offers several unique advantages. First, it can be utilized as an information - seeking device. Second, aside from attaining information, this approach can be utilized to alter the minimum preferences of an opponent in a direction more favorable to your own position. In line with this, such a bargaining position makes it difficult for an opponent to determine your own minimum negotiating expectations. The U.S. approach in SALT, on the other hand, was positioned somewhere between an equitable school of thought, where the initial position taken appears reasonably fair to both sides, and an integrative school of thought, where an integrative process in negotiation is achieved through simultaneously proposing a number of potential solutions in search of mutual interest which could form the basic foundation for resolving the issues at hand. Kissinger's tandem series of

negotiable options during SALT I typlified these negotiating techniques. However, as has been noted, the consequence of this action left the choice of issues up to the discretion of the Soviets. As General Rowny relates,

> We negotiate among ourselves, we want to be believed, we want to be credible. So we get things down to a lowest common denominator and then we say with all the fervor and conviction at our command that we are going to stick to our position, then we don't. We get into negotiations with the Soviets and they say, and our own people say as well, "You know, you have to trade. There has to to some give and take in this negotiating process." So they sit us out, wait us out. We then make another proposal. They then pick and choose from our proposals. They put together pieces and say "Well, you have already agreed to those pieces by offering them to us in your proposals."[67]

The negotiating history of the SLCM outcome clearly attests to the negotiating success of the Soviet approach during SALT II.

The Soviets also utilized a variety of negotiating tactics which supplemented their general SALT negotiating strategy. Paul Nitze gives the following examples. The Soviets would use words in other than their normally accepted sense, exploited the differences in nuance between Soviet words and their English equivalents and would use imprecise language in presenting provisions which would limit their side and precise language where the object was to limit U.S. actions.[68] In relation to these negotiating techniques, it is significant to note that at the Moscow Summit in 1972, when the outcomes

over SSBN and SLBM launcher limits were being negotiated, neither Nixon or Kissinger utilized a State Department interpreter, but rather relied on Viktor Sukhodrev, who was Brezhnev's assistant and interpreter.[69]

Other Soviet negotiating tactics included delaying actions, reversals, and repetition, all geared to try the patience of U.S. negotiators in an effort to exact additional concessions. Additional techniques frequently included arguments appealing to trust or good intentions. To illustrate

> The Soviet delegates refused to consider arms balance equations on the basis of the capabilities of the respective weapons. Instead they insisted that consideration be given to the "intent" of the Soviet Union, which they discribed as peaceful. General Rowny cites the Soviet Backfire bombers as the "classic case." The Soviet delegation repeatedly said that as the Soviet Union had no intention of using the Backfire against the continental U.S. it, therefore could not be included in the SALT agreement.[70]

Although these examples are by no means all inclusive, they nevertheless reveal the existence of significant differences between the two contrasting approaches to SALT.

In comparison to the U.S. SALT delegation, the Soviet military exercised predominant control over the Soviet delegation. Indicative of this control of the Soviet military over their civilian negotiators was Col. Gen. N. V. Ogarkov, who, according to Newhouse, was clearly the most important figure on the Soviet delegation, even though Semenov was

the nominal leader."[71] At one point in the negotiations, Ogarkov confided to the American negotiators that there was no reason for the U.S. to disclose knowledge of Soviet weapon systems to the civilian members of the Soviet delegation. These matters, he warned, were strictly the concern of the Soviet military.[72] The preeminent role of the Soviet military was also apparent during both the Moscow and Vladivostok summit meetings in 1974. As Garthoff notes, although no U.S. military representatives attended these summit meetings, senior Soviet military representatives were closely consulted by Brezhnev and directly participated in the actual negotiations.[73] In contrast with the JCS, whose recommendations on a number of key SALT issues were overturned by civilians, Soviet SALT policy formulation reflects a systemic bias on military influence in SALT. To cite Wolfe,

> it seems hardly disputable that throughout SALT I and at least much of SALT II, the military leadership has exerted a strong, conservative influence on the negotiations, and that the political leadership--whatever its bent may have been--has tended to eschew agreements that, in the judgement of the military professionals, might adversely affect the Soviet military posture.[74]

The Soviet military's control over SALT is reflected in the following character description of the chief Soviet SALT negotiator, Vladimir S. Semenov.

> Conscious of the predominance of the military role in arms control negotiations, he was particularly respectful

> of the military on the Soviet delegation and always deferred to the delegation as a whole when new lines and approaches emerged in negotiations, even in such minor matters as a recess. He displayed also a particular hypersensitivity about disclosing any military secrets and revealed the civilians ill-at-ease in the presence of military authority.[75]

Viewed in terms of the institutional setting and processes within which Soviet SALT policy is formulated, the following asymmetries require mention. In contrast to the pluralistic society of the U.S., the Soviet Union has no independent interest groups which lobby for a particular SALT position. As Wolfe notes, in the Soviet Union,

> There is no body of informed opinion on SALT and national security issues independent of, and therefore capable of criticizing official government positions. In the public sphere, neither an inquiring press nor lobbies of defense, scientists and other knowledgeable experts play an active role in the Soviet Union in fostering public debate on arms control and defense matters.[76]

However, given the traits of our open society, the Soviet government was able to try and change a U.S. SALT position by editorializing and influencing public opinion in the U.S. An example of such Soviet propaganda efforts was an article written in the New York Times by Genrikh Trofimenko. Playing upon public sentiment, he attempted to influence SALT II ratification by arguing

> many senators are arguing that nothing will happen if the SALT II Treaty is not ratified. But if this happens, won't

this step push the world to another war
that will be immeasurably more disastrous
than the Second?[77]

Another asymmetry lies in the legislative sphere. In the U.S. there exists a Congress with independent powers from the executive, which have profoundly influenced decisions in respect to SALT. However, in the Soviet Union, there is no independent legislative body with equivalent influence. The Supreme Soviet therefore acts only in a symbolic fashion, giving only pro forma approval to SALT decisions made elsewhere.

As already noted, a third asymmetrical dimension is reflected in access to knowledge. The U.S. has extremely poor knowledge of Soviet decision-making, whereas the Soviets have an excellent opportunity to develop ample knowledge from a variety of sources.

Fourth, in contrast to the bureaucratic variations in the U.S. SALT organizational and control mechanisms, the Soviets displayed continuity over time, in both control and the composition of the Soviet delegation. For example, Deputy Foreign Minister Vladimir S. Semenov was chief of the Soviet SALT delegation for over eight years.

At this juncture, it is difficult to determine how significant an impact these various asymmetries in political culture, institutional settings etc. have had in determining the outcomes in question. In themselves, these asymmetries have offered the Soviets important exploitable advantages in

conducting protracted arms control negotiations with the U.S. However, the foregoing examination reveals that asymmetries between Soviet and U.S. negotiation methodology typified the differences between the two societies and cultures and were therefore of decisive importance in determining the outcomes relevant to this analysis.

IV. CONCLUSIONS

This thesis has had two fundamental objectives. The first was to identify key SALT outcomes with naval implications. On balance, one is drawn to the conclusion that SALT has had an asymmetrical impact upon the overall naval capabilities of the U.S. and the Soviet Union. Although systematically constraining the force structure of the U.S. Navy with a high potential of affecting its strategic nuclear war-fighting, intra-war deterrence and sea control mission effectiveness (particularly in a tactical nuclear environment), SALT has on the other hand allowed the overall capabilities of the Soviet Navy vis-a-vis the U.S. Navy to expand significantly.

The principal SALT naval outcomes support this conclusion. The ABM Treaty prevents both sides from developing a sea-based ABM, but the U.S. is at a disadvantage because it is the Soviets who have distinct superiority in both land-based and sea-based ballistic missile throwweight. Indeed, Soviet sea-based tactical nuclear capabilities excel those of the U.S. by a significant margin, and only the Soviets have claimed to be developing a land-based anti-ship ballistic missile capability. The 1972 Interim Agreement awarded the Soviets higher SSBN and SLBM ceilings. The SALT II Treaty, while calling for equal aggregate levels of strategic

nuclear launchers, continued the naval "loopholes" of SALT I (e.g., exclusion of Soviet diesel SLBM-launchers) and maintained Soviet throwweight advantages. Finally, the SALT II Protocol, taken in context of the Statement of Principles for SALT III, could potentially prevent the realization of the American SLCM program - while exampting already deployed Soviet SLCMs.

The second objective of this thesis was to try to explain these SALT outcomes by testing the hypothesis that outcome determination was primarily the function of asymmetries in negotiation approaches. In view of the findings, one is left with the following enigma. Can we isolate negotiation approaches from the society as a whole and all the contributing factors that combine to produce the negotiation approach? As this study has indicated, these factors, such as strategic doctrine, bureaucratic processes, defense spending, etc., all influence the makeup of a nation's negotiation approach. If it can be accepted as analytically defensible to focus on negotiating approaches in themselves, it seems clear that the U.S. took a different approach -- one that rewarded the Soviet approach to negotiation, at least so far as the naval outcomes of SALT.

Given the Soviet Union's social and political structure and the negotiation approach that structure naturally promotes, and given the negotiation approach the U.S. is led to naturally, the asymmetrical naval outcomes in SALT are

understandable. If the U.S. is to do better, the U.S. must try harder. In a word, we must learn to overcome our own cultural constraints in order to negotiate with the Soviets effectively. We must learn from the Soviets.

The asymmetries reviewed in Chapter III provide a checklist of lessons that may be learned by the U.S. For example, in striking contrast to the Soviet pattern of negotiation in SALT, the U.S. has failed to give the military a decisive role and responsibility in SALT decision-making policy and in the actual conduct of the negotiations. The U.S. has failed to evaluate the military implications of particular SALT provisions from an analytical and strategic viewpoint other than "mutual assured destruction," which is increasingly recognized as inadequate. The U.S. has failed to pursue a consistent policy with respect to negotiating objectives. Similarly, the U.S. has failed to maintain consistency and coherence in its SALT planning and negotiation institutions; indeed, on several occasions, U.S. institutions have been by-passed - as during the "back-channel" episodes. The U.S. has, unlike the Soviet Union, accelerated negotiations and made hasty concessions at "summit" conferences in order to meet the exigencies of domestic U.S. political deadlines. Finally, as concerns defense spending, the U.S. has consciously negotiated with a "weak hand" - that is, with the knowledge that it did not have the Congressional and public backing necessary for credibility (derived from relevant strategic weapons programs) in such negotiations.

If the U.S. were negotiating with (for example) the British, our established approach to arms control negotiations would be appropriate. On the other hand, if the Soviets were negotiating with (for example) the Chinese, they in turn might not be so successful. However, the conflicting combination of the U.S. and Soviet negotiation approaches in SALT has simply not been to our advantage in terms of outcome determination. If such asymmetrical SALT naval outcomes are to be avoided in the future, the U.S. must learn from this negotiating experience.

FOOTNOTES

Section 1

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